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DANGEROUS WASTE PORTION OF THE RESOURCE CONSERVATION AND RECOVERY ACT PERMIT FOR THE TREATMENT, STORAGE, AND DISPOSAL OF DANGEROUS WASTE

Department of Ecology
Nuclear Waste Program
P.O. Box 47600
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Telephone: (360) 407-7132

Issued in accordance with the applicable provisions of the Hazardous Waste Management Act, Chapter 70.105 RCW, and the regulations promulgated thereunder in Chapter 173-303 WAC.

ISSUED TO:

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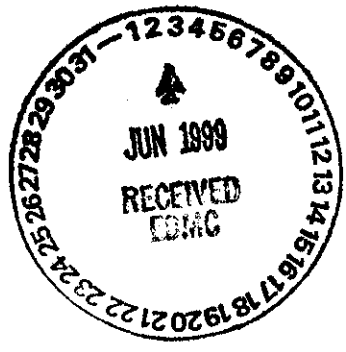
This Permit, as modified on May 18, 1999, is effective as of June 17, 1999, and shall remain in effect through September 27, 2004, unless revoked and reissued under WAC 173-303-830(3), terminated under WAC 173-303-830(5), or continued in accordance with WAC 173-303-806(7). The Internet address for this Permit is http://www.hanford.gov/docs/wa7890008967/index.htm.

ISSUED BY: **WASHINGTON STATE DEPARTMENT OF ECOLOGY**

Michael C. Wilson

Michael Wilson, Manager
Nuclear Waste Program
Department of Ecology

Date: 5-18-99



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LIST OF ATTACHMENTS

The following listed documents are attached in their entirety. However, only those portions of the Attachments specified in Parts I through VI are enforceable Conditions of this Permit and subject to the Permit Modification requirements of Condition I.C.3. Changes to portions of the Attachments, which are not subject to the Permit Modification process, shall be addressed in accordance with Conditions I.E.8., I.E.11., I.E.13., and I.E.15. through I.E.20., and I.E.22. Ecology has, as deemed necessary, modified specific language in these Attachments. These Modifications are described in the Conditions (Parts I through VI), and thereby supersede the language of the Attachment.

Attachment 1	Hanford Federal Facility Agreement and Consent Order, (As Amended)
Attachment 2	Hanford Facility Legal Description, from Class 1 Modification dated January 7, 1999
Attachment 3	Permit Applicability Matrix (As Revised on February 25, 1998)
Attachment 4	Hanford Emergency Response Plan, DOE/RL-94-02, release 13, July 1, 1998, as amended
Attachment 5	Purgewater Management Plan, July 1990
Attachment 6	Hanford Well Remediation and Decommissioning Plan, Revision 0
Attachment 7	Policy on Remediation of Existing Wells and Acceptance Criteria for RCRA and CERCLA, June 1990
Attachment 8	616 Nonradioactive Dangerous Waste Storage Facility Part A, Form 3, Revision 7, March 4, 1997, and Part B Permit Application, Revision 2, September 1991, and Approved Modifications
Attachment 9	616 Nonradioactive Dangerous Waste Shipping Lists
Attachment 10	616 Nonradioactive Dangerous Waste Facility Description of Procedures
Attachment 11	183-H Solar Evaporation Basins Closure/Post-Closure Plan, Revision 3, June 1991 (Superseded by Attachment 37)
Attachment 12	Decommissioning Work Plan "Concrete Sampling - 183-H Solar Evaporation Basins" (DWP-H-080-00001) 8-26-91, Revision A-3
Attachment 13	Decommissioning Work Plan "Core Drill Sampling - 183-H Solar Evaporation Basins (Phase I)" (DWP-H-080-00005) 2-8-91, Revision A-1
Attachment 14	"183-H Solar Evaporation Basins Vadose Zone Sampling Plan" (WHC-SD-EN-AP-056) 6-25-91, Revision 0
Attachment 15	Decommissioning Work Plan "Berm Removal for 183-H Solar Evaporation Basins" (DWP-H-026-00008) 1-16-91, Revision A-0
Attachment 16	300 Area Solvent Evaporator Closure Plan, Revision 3B, September 1992 **(Clean Closed, July 31, 1995)**
Attachment 17	2727-S Nonradioactive Dangerous Waste Storage Facility Closure Plan, Revision 3, January 1992 **(Clean Closed, July 31, 1995)**
Attachment 18	305-B Storage Facility Part A, Form 3, Revision 1, September 25, 1990, and Part B Permit Application, Revision 2, October 1992, and Approved Modifications

Attachment 19	Simulated High-Level Waste Slurry TSD Closure Plan, Revision 6A, November 1994 **(Clean Closed, October 23, 1995)**
Attachment 20	218-E-8 Borrow Pit Demolition Site Closure Plan, Revision 1, October 1994 **(Clean Closed, November 28, 1995)**
Attachment 21	200 West Ash Pit Demolition Site Closure Plan, Revision 1, October 1994 **(Clean Closed, November 28, 1995)**
Attachment 22	2101-M Pond Closure Plan, Revision 2A, July 1993 **(Clean Closed, November 28, 1995)**
Attachment 23	216-B-3 Expansion Ponds Closure Plans, Revision 2, October 1994 **(Clean Closed, July 31, 1995)**
Attachment 24	Hanford Patrol Academy Demolition Sites Closure Plan, Revision 1, December 1994 **(Clean Closed, November 28, 1995)**
Attachment 25	105-DR Large Sodium Fire Facility Closure Plan, Revision 2, March 1995 **(Partial Closure Plan Completed October 1, 1996**
Attachment 26	304 Concretion Facility Closure Plan, Revision 2A, November 1993 **(Clean Closed, January 21, 1996)**
Attachment 27	Permit Modification Schedule as revised on May 18, 1999
Attachment 28	PUREX Storage Tunnels Part A, Form 3, Revision 5, October 1996 and Part B, Revision 4, April 1997, and approved Modifications
Attachment 29	4843 Alkali Metal Storage Facility Closure Plan, Revision 1, September 1995 **(Clean Closed, April 14, 1997)**
Attachment 30	3718-F Alkali Metal Treatment and Storage Facility Closure Plan, Revision 2, November 1995
Attachment 31	300 Area Process Trenches Modified Closure Plan and Part A, Form 3, Revision 4, May 1995 and approved Modifications
Attachment 32	303-K Storage Facility Closure Plan, Revision 2A, June 1995
Attachment 33	Hanford Facility Dangerous Waste Permit Application General Information Portion, Revision 4, May 1998
Attachment 34	Liquid Effluent Treatment Facility, Part A, Form 3, Revision 5, October 1996 and 200 Area Effluent Treatment Facility Part A, Form 3, Revision 2, October 1996 and Part B Permit Application, Revision 0, July 1997, and approved Modifications
Attachment 35	242-A Evaporator Part A, Form 3, Revision 7, October 1996, and Part B Permit Application, Revision 1, July 1997, and approved Modifications
Attachment 36	325 Hazardous Waste Treatment Units Part A, Form 3, Revision 4, June 1997, and Part B Permit Application, Revision 1, July 1997, and approved Modifications
Attachment 37	183-H Solar Evaporation Basins Post-Closure Plan, Revision 0, June 1997
Attachment 38	303-K Storage Facility Sampling and Analysis Plan, Revision 0, July 14,1997
Attachment 39	Errata Sheet for the 303-K Storage Facility Sampling and Analysis Plan, August 1, 1997
Attachment 40	100-D Ponds Part A, Form 3, Revision 4, June 1994; and Closure Plan

1	Attachment 41	1325-N and 1301-NP Part A, Form 3, Revision 7, February 1997; and
2		DOE/RL-96-39, Revision 0, Appendix A
3	Attachment 42	1324-N and 1324-NA Part A, Form 3, Revision 3, June 1994; and DOE/RL-96-39,
4		Revision 0, Appendix B

INTRODUCTION

Pursuant to Chapter 70.105 Revised Code of Washington (RCW), the Hazardous Waste Management Act (HWMA) of 1976, as amended, Chapter 70.105D RCW, the Model Toxics Control Act (MTCA), and regulations promulgated thereunder by the Washington State Department of Ecology (hereafter called Ecology), codified in Chapter 173-303 Washington Administrative Code (WAC), Dangerous Waste Regulations, a Dangerous Waste Permit is issued to the United States Department of Energy - Richland Operations Office (USDOE-RL), [owner/operator], and its contractors, Fluor Daniel Hanford, Inc. (FDH) [Co-operator] Pacific Northwest National Laboratory (PNNL) [Co-operator], and Bechtel Hanford, Incorporated (BHI) [Co-operator], hereafter called the Permittees, for the treatment, storage, and disposal of dangerous waste at the Hanford Facility.

This Dangerous Waste Permit, issued in conjunction with the U.S. Environmental Protection Agency's (hereafter called the EPA) Hazardous and Solid Waste Amendments Portion of the Resource Conservation and Recovery Act (RCRA) Permit for the Treatment, Storage, and Disposal (TSD) of Hazardous Waste (HSWA Permit), constitutes the Resource Conservation and Recovery Act Permit (RCRA Permit) for the Hanford Facility. Use of the term "Permit" within the Dangerous Waste Permit shall refer to the Dangerous Waste Permit, while use of the term "Permit" within the HSWA Permit, shall refer to the HSWA Permit. Use of the same term in both the Dangerous Waste Permit and the HSWA Permit, shall have the standard meaning associated with the activities addressed by the Permit in which the term is used. Such meanings shall prevail, except where specifically stated otherwise.

The Permittees shall comply with all terms and conditions set forth in this Permit and those portions of the Attachments that have been specifically incorporated into this Permit. When the Permit and the Attachments (except Attachment 1) conflict, the wording of the Permit will prevail. The Permit is intended to be consistent with the terms and conditions of the Hanford Federal Facility Agreement and Consent Order (FFACO, Attachment 1). The Permittees shall also comply with all applicable state regulations, including Chapter 173-303 WAC.

Applicable state regulations are those which are in effect on the date of issuance, or as specified in subsequent Modifications of this Permit. In addition, applicable state regulations include any self-implementing statutory provisions and related regulations which, according to the requirements of the Hazardous Waste Management Act (HWMA), as amended, or other law(s), are automatically applicable to the Permittees' dangerous waste management activities, notwithstanding the Conditions of this Permit.

This Permit is based upon the Administrative Record, as required by WAC 173-303-840. The Permittees' failure in the application, or during the Permit issuance process, to fully disclose all relevant facts, or the Permittees' misrepresentation of any relevant facts at any time, shall be grounds for the termination or modification of this Permit and/or initiation of an enforcement action, including criminal proceedings. The Permittees shall inform Ecology of any deviation from Permit Conditions, or changes in the information on which the application is based, which would affect either the Permittees' ability to comply, or actual compliance with the applicable regulations or Permit Conditions, or which alters any Condition of this Permit in any way.

Ecology shall enforce all Conditions of this Permit for which the State of Washington is authorized, or which are "state-only" provisions (i.e., Conditions broader in scope or more stringent than the Federal RCRA program). Any challenges of any Permit Condition may be appealed in accordance with WAC 173-303-845. In the event that any Permit Condition is challenged by any Permittee under WAC 173-303-845, Ecology may stay any such Permit Condition as it pertains to all Permittees, in accordance with the same terms of any stay it grants to the challenging Permittee. If such a stay is granted, it will constitute a "stay by the issuing agency" within the meaning of RCW 43.21B.320(1).

This Permit has been developed to allow a step-wise permitting process of the Hanford Facility to ensure the proper implementation of the FFACO. In order to accomplish this, this Permit consists of six (6) Parts.

Part I, **Standard Conditions**, contains Conditions which are similar to those appearing in all dangerous waste Permits.

Part II, **General Facility Conditions**, combines typical dangerous waste Permit Conditions with those conditions intended to address issues specific to the Hanford Facility. Where appropriate, the General Facility Conditions apply to all final status dangerous waste management activities at the Facility. Where appropriate, the General Facility Conditions also address dangerous waste management activities which may not be directly associated with distinct TSD units, or which may be associated with many TSD units (i.e., spill reporting, training, contingency planning, etc.).

Part III, **Unit-Specific Conditions for Operating Units**, contains those Permit requirements which apply to each individual TSD unit operating under final status. Conditions for each TSD unit are found in a Chapter dedicated to that TSD unit. These unit-specific Chapters contain references to Standard and General Conditions (Parts I and II), as well as additional requirements which are intended to ensure that each TSD unit is operated in an efficient and environmentally protective manner.

Part IV, **Corrective Actions for Past Practice**, references the EPA's HSWA Permit. The HSWA Permit contains those requirements that apply to the identification of Solid Waste Management Units (SWMUs) at the Facility, and conduct of investigations and remediation at such SWMUs. The HSWA Permit addresses both SWMUs that are located on the USDOE managed portions of the Facility, as well as SWMUs which are not located on USDOE managed property (i.e., leased lands). Any SWMUs located on USDOE managed property are, or will be, included in the FFACO and assigned to operable units. The processes and procedures to be followed, and the schedules of compliance for investigation and subsequent remediation, will be contained in the FFACO. SWMUs not located on USDOE managed property will undergo investigations and remediation, as necessary, in accordance with the requirements and schedules identified in the HSWA Permit.

It is intended that, once Ecology receives authorization from the EPA to implement the Corrective Action Provisions, these requirements will be incorporated into this Part through a Permit Modification. Until Ecology receives authorization for the Corrective Action Provisions of RCRA, the EPA shall maintain regulatory lead for these requirements.

Part V, **Unit-Specific Conditions for Units Undergoing Closure**, contains those requirements which apply to those specific TSD units, included in this Part, that are undergoing closure. In accordance with Section 5.3. of the Action Plan of the FFACO, all TSD units that undergo closure, irrespective of Permit status, shall be closed pursuant to the authorized State Dangerous Waste Program in accordance with WAC 173-303-610. Requirements for each TSD unit undergoing closure are found in a Chapter dedicated to that TSD unit. These unit-specific Chapters contain references to Standard Conditions (Part I) and General Conditions (Part II), as well as additional requirements which are intended to ensure that each TSD unit is closed in an efficient and environmentally protective manner.

Part VI, **Unit-Specific Conditions for Units in Post-Closure,** contains requirements which apply to those specific units in this Part that have completed modified or landfill closure requirements, and now only need to meet Post-Closure Standards. As set out in Section 5.3 of the Action Plan of the FFACO, certain TSD units shall be Permitted for post-closure care pursuant to the authorized State Dangerous Waste Program (173-303 WAC) and the Hazardous and Solid Waste Amendments. Requirements for each unit undergoing post-closure care are found in a Chapter, within this Part, dedicated to that unit. These unit specific Chapters may contain references to Standard Conditions (Part I) and General Conditions (Part II), as well as the unit specific Conditions, all of which are intended to ensure the unit is managed in an efficient, environmentally protective manner.

DEFINITIONS

All definitions contained in the FFACO, May 1989, as amended, are hereby incorporated, in their entirety, by reference into this Permit, except that any of the definitions used below, (a) through (n) shall supersede any definition of the same term given in the FFACO. However, the Permit is intended to be consistent with the FFACO.

All definitions contained in WAC 173-303-040 are hereby incorporated, in their entirety, by reference into this Permit, except that any of the definitions used below, (a) through (n), shall supersede any definition of the same term given in WAC 173-303-040.

Where terms are defined in both Chapter 173-303 WAC and the FFACO, the definitions contained in Chapter 173-303 WAC shall supersede any definition of the same term given in the FFACO.

Where terms are not defined in the regulations, the Permit or the FFACO, a standard dictionary reference, or the generally accepted scientific or industrial meaning of the term shall define the meaning associated with such terms.

As used in this Permit, words in the masculine gender also include the feminine and neuter genders, words in the singular include the plural, and words in the plural include the singular.

The following definitions apply throughout this Permit:

a. The term "**Critical Systems,**" as applied to determining whether a Permit Modification is required, means those specific portions of a TSD unit's structure or equipment whose failure could lead to the release of dangerous waste into the environment, and/or systems which include processes which treat, transfer, store, or dispose of regulated wastes. A list identifying the critical systems of a specific TSD unit may be developed and included in Part III, V, and/or VI of this Permit. In developing a critical system list, or in the absence of a critical system list, WAC 173-303-830 Modifications shall be considered.

b. The term "**Contractor(s)**" means, unless specifically identified otherwise in this Permit, or Attachments, Fluor Daniel Hanford, Inc. (FDH), Pacific Northwest National Laboratory (PNNL), and Bechtel Hanford, Inc. (BHI).

c. The term "**Dangerous Waste**" means those solid wastes designated under Chapter 173-303 WAC as dangerous or extremely hazardous waste. As used in the Permit, the word "dangerous waste" shall refer to the full universe of wastes regulated by Chapter 70.105 RCW and Chapter 173-303 WAC (including dangerous waste, hazardous waste, extremely hazardous waste, mixed waste, and acutely hazardous waste).

d. The term "**Days**" means calendar days, unless specifically identified otherwise. Any submittal, notification, or recordkeeping requirement that would be due under the Conditions of this Permit on a Saturday, Sunday, or federal, or state holiday, shall be due on the following business day, unless specifically stated otherwise in the Permit.

e. The term "**Ecology**" means the Washington State Department of Ecology (with the address as specified on page one [1] of this Permit).

f. The term "**Director**" means the Director of the Washington State Department of Ecology, or a designated representative. The Program Manager of the Nuclear Waste Program (with the address as specified on page one [1] of this Permit) is a duly authorized and designated representative of the Director for purposes of this Permit.

g. The term "**Facility**" means all contiguous land, structures, other appurtenances, and improvements on the land used for recycling, reusing, reclaiming, transferring, storing, treating, or disposing of dangerous waste. The legal and physical description of the Facility is set forth in Attachment 2 of this Permit.

h. The term "**FFACO**" means the Hanford Federal Facility Agreement and Consent Order, as amended (Commonly referred to as Tri-Party Agreement [TPA]).

i. The term "**RCRA Permit**" means the Dangerous Waste Portion of the RCRA Permit for the Treatment, Storage, and Disposal of Dangerous Waste (Dangerous Waste Permit) issued by the Washington State Department of Ecology, pursuant to Chapter 70.105 RCW and Chapter 173-303 WAC, coupled with the HSWA Portion of the RCRA Permit for the Treatment, Storage, and Disposal of Hazardous Waste (HSWA Permit) issued by the EPA, Region 10, pursuant to 42 U.S.C. 6901 et seq. and 40 CFR Parts 124 and 270.

j. The term "**Permittees**" means the United States Department of Energy (owner/operator), Fluor Daniel Hanford, Inc. (Co-operator), Bechtel Hanford, Inc. (Co-operator), and Pacific Northwest National Laboratory (Co-operator).

k. The term "**Raw Data**" means the initial value of analog or digital instrument outputs, and/or manually recorded values obtained from measurement tools or personal observation. These values are converted into reportable data (e.g., concentration, percent moisture) via automated procedures and/or manual calculations.

l. The term "**Reasonable Times**" means normal business hours; hours during which production, treatment, storage, construction, disposal, or discharge occurs, or times when Ecology suspects a violation requiring immediate inspection.

m. The term "**Significant Discrepancy**" in regard to a manifest or shipping paper, means a discrepancy between the quantity or type of dangerous waste designated on the manifest, or shipping paper, and the quantity or type of dangerous waste a TSD unit actually receives. A significant discrepancy in quantity is a variation greater than ten (10) percent in weight for bulk quantities (e.g., tanker trucks, railroad tank cars, etc.), or any variation in piece count for nonbulk quantities, (i.e., any missing container or package would be a significant discrepancy). A significant discrepancy in type is an obvious physical or chemical difference which can be discovered by inspection or waste analysis (e.g., waste solvent substituted for waste acid).

n. The term "**Unit**" (or "**TSD unit**"), as used in Parts I through VI of this Permit, means the contiguous area of land on or in which dangerous waste is placed, or the largest area in which there is a significant likelihood of mixing dangerous waste constituents in the same area. A TSD unit, for purposes of this Permit, is a subgroup of the Facility which has been identified in a Hanford Facility Dangerous Waste Part A Permit Application Form 3.

ACRONYMS

ALARA	As Low As Reasonably Achievable
AMSF	Alkali Metal Storage Facility
APDS	Ash Pit Demolition Site
ARAR	Applicable, Relevant, and Appropriate Requirements
APP	Used to Denote Appendix Page Numbers
APT	Area Process Trenches
BHI	Bechtel Hanford, Inc.
BPDS	Borrow Pit Demolition Site
CD/RR	Chemical Disposal/Recycle Request
CERCLA	Comprehensive Environmental Response Compensation and Liability Act of 1980 (as Amended by the Superfund Reauthorization Act of 1986)
CFR	Code of Federal Regulations
CIP	Construction Inspection Plan
CLARC	Cleanup Levels and Risk Calculations
CLP	Contract Laboratory Program
COC	Chemical Contaminants of Concern
DOE-RL	U.S. Department of Energy, Richland Operations Office
DSC	Differential Scanning Colorimetry
DQO	Data Quality Objective
EC	Emergency Coordinator
Ecology	Washington State Department of Ecology
ECN	Engineering Change Notice
EPA	U.S. Environmental Protection Agency
ERA	Expedited Response Action
ERDF	Environmental Restoration and Disposal Facility
ETF	200 Area Effluent Treatment Facility
FDH	Fluor Daniel Hanford, Inc.
FFACO	Hanford Federal Facility Agreement and Consent Order
GW	Ground Water
HPADS	Hanford Patrol Academy Demolition Site
HSWA	Hazardous and Solid Waste Amendments of 1984
HWMA	Hazardous Waste Management Act
ID	Identification
IRM	Interim Remedial Measure

1	LDR	Land Disposal Restrictions
2	LERF	Liquid Effluent Retention Facility
3	LSFF	105-DR Large Sodium Fire Facility
4	MTCA	Model Toxics Control Act
5	NCR	Nonconformance Report
6	OSWER	Office of Solid Waste and Emergency Response
7	PNNL	Pacific Northwest National Laboratory
8	QA	Quality Assurance
9	QAPP	Quality Assurance Project Plan
10	QC	Quality Control
11	RCRA	Resource Conservation and Recovery Act of 1976
12	RCW	Revised Code of Washington
13	ROD	Records of Decision
14	RPD	Relative Percent Difference
15	SAP	Sampling and Analysis Plan
16	SARA	Superfund Amendments and Reauthorization Act of 1986
17	SCD	Security Control Devices
18	SHLWS	Simulated High Level Waste Slurry
19	SOP	Standard Operating Procedure
20	SWMU	Solid Waste Management Unit
21	TCLP	Toxicity Characteristic Leaching Procedure
22	TSD	Treatment, Storage, and/or Disposal
23	USDOE	U.S. Department of Energy
24	WAC	Washington Administrative Code
25	WAP	Waste Analysis Plan
26	183-H	183-H Solar Evaporation Basins
27	242-A	242-A Evaporator
28	300 APT	300 Area Process Trenches
29	300 ASE	300 Area Solar Evaporator
30	325 HWTUs	325 Hazardous Waste Treatment Units
31	303-K	303-K Storage Facility
32	305-B	305-B Storage Facility
33	616-NRDWSF	616 Nonradioactive Dangerous Waste Storage Facility

I STANDARD CONDITIONS

I.A EFFECT OF PERMIT

I.A.1. The Permittees are authorized to treat, store, and dispose of dangerous waste in accordance with the Conditions of this Permit and in accordance with the applicable provisions of Chapter 173-303 WAC (including provisions of the Chapter as they have been applied in the FFACO). Any treatment, storage, or disposal of dangerous waste by the Permittees at the Facility that is not authorized by this Permit, or by WAC 173-303-400 (including provisions of this regulation as they have been applied in the FFACO), for those TSD units not subject to this Permit, and for which a Permit is required by Chapter 173-303 WAC, is prohibited.

TSD units operating or closing under interim status shall maintain interim status until that TSD unit is incorporated into Part III, V, and/or VI of this Permit, or until interim status is terminated under WAC 173-303-805(8). Interim status units shall be incorporated into this Permit through the Permit Modification process. (Refer to Attachment 27 for TSD unit incorporation).

I.A.2. The Conditions of this Permit shall be applied to the Facility as defined by the Permit Applicability Matrix (Attachment 3).

I.A.3. USDOE is responsible for activities which include, but are not limited to, the overall management and operation of the Facility.

FDH is identified as a Permittee for activities subject to the Conditions of this Permit where its agents, employees, or subcontractors have operational and/or management responsibilities and control.

PNNL is identified as a Permittee for activities subject to the Conditions of this Permit where its agents, employees, or subcontractors have operational and/or management responsibilities and control.

BHI is identified as a Permittee for activities subject to the Conditions of this Permit where its agents, employees, or subcontractors have operational and/or management responsibilities and control.

I.A.4. Coordination With The FFACO

Each TSD unit shall have an application for a final status Permit or closure/post-closure plan submitted to Ecology in accordance with the schedules identified in the FFACO (Milestone M-20-00). After completion of the Permit application or closure plan review, a final Permit decision will be made pursuant to WAC 173-303-840. Specific Conditions for each TSD unit shall be incorporated into this Permit in accordance with the Class 3 Permit Modification procedure identified in Condition I.C.3., at the time identified in the five (5) year Permit Modification Schedule in Attachment 27.

I.B PERSONAL AND PROPERTY RIGHTS

This Permit does not convey property rights of any sort, or any exclusive privilege; nor does it authorize any injury to persons or property, or any invasion of other private rights, or any violation of federal, state, or local laws or regulations.

I.C PERMIT ACTIONS

I.C.1 Modification, Revocation, Reissuance, or Termination

This Permit may be modified, revoked and reissued, or terminated by Ecology for cause as specified in WAC 173-303-830(3),(4), and (5).

I.C.2 Filing of a Request

The filing of a request for a Permit Modification, or revocation and reissuance, or termination, or a notification of planned changes, or anticipated noncompliance on the part of the Permittees, shall not stay the applicability or enforceability of any Condition except as provided in WAC 173-303-830(3),(4), and (5).

I.C.3 Modifications

Except as provided otherwise by specific language in this Permit, the Permit Modification procedures of WAC 173-303-830 shall apply to Modifications or changes in design or operation of the Facility, or any Modification or change in dangerous waste management practices covered by this Permit. As an exception, the Permittees shall provide notifications to Ecology required by WAC 173-303-830(4)(a)(i)(A) on a quarterly basis. Each quarterly notification shall be submitted within ten (10) days of the end of the quarter, and provide the required information for all such Modifications put into effect during that reporting period. Quarterly reporting periods shall be based upon the state Fiscal Year.

I.D SEVERABILITY

I.D.1 Effect of Invalidation

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance is contested and/or held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. Invalidation of any state statutory or regulatory provision which forms the basis for any Condition of this Permit does not affect the validity of any other state statutory or regulatory basis for said Condition.

I.D.2 Final Resolution

In the event that a Condition of this Permit is stayed for any reason, the Permittees shall continue to comply with the related applicable and relevant interim status standards in WAC 173-303-400 until final resolution of the stayed Condition, unless Ecology determines compliance with the related applicable and relevant interim status standards would be technologically incompatible with compliance with other Conditions of this Permit, which have not been stayed, or unless the FFACO authorizes an alternative action, in which case the Permittees shall comply with the FFACO.

I.E DUTIES AND REQUIREMENTS

I.E.1 Duty to Comply

The Permittees shall comply with all Conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency Permit issued under WAC 173-303-804. Any Permit noncompliance other than noncompliance authorized by an emergency Permit constitutes a violation of Chapter 70.105 RCW, as amended, and is grounds for enforcement action, Permit termination, Modification or revocation and reissuance of the Permit, and/or denial of a Permit renewal application.

I.E.2 Compliance Not Constituting Defense

Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Section 3007, 3008, 3013, or 7003 of RCRA (42 U.S.C. Sections 6927, 6928, 6934, and 6973), Section 104, 106(a) or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) [42 U.S.C. Sections 9604, 9606(a), and 9607], as amended by the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C. 9601 et seq.), or any other federal, state, or local law governing protection of public health, or the environment; provided, however, that compliance with this Permit during its term constitutes compliance at those areas subject to this Permit for the purpose of enforcement with WAC 173-303-140, WAC 173-303-180, WAC 173-303-280 through -395, WAC 173-303-600 through -680, WAC 173-303-810, and WAC 173-303-830, except for Permit Modifications and those requirements not included in the Permit that become effective by statute, or that are promulgated under 40 CFR Part 268 restricting the placement of dangerous waste in or on the land.

I.E.3 Duty to Reapply

If the Permittees wish to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittees must apply for, and obtain a new Permit, in accordance with WAC 173-303-806(6).

I.E.4 Permit Expiration and Continuation

This Permit, and all Conditions herein, will remain in effect beyond the Permit's expiration date until the effective date of the new Permit, if the Permittees have submitted a timely, complete application for renewal per WAC 173-303-806 and, through no fault of the Permittees, Ecology has not made a final Permit determination as set forth in WAC 173-303-840.

I.E.5 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense in the case of an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the Conditions of this Permit.

I.E.6 Duty to Mitigate

In the event of noncompliance with the Permit, the Permittees shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to minimize or correct adverse impacts on human health and the environment.

I.E.7 Proper Operation and Maintenance

The Permittees shall at all times properly operate and maintain all facilities and systems of treatment and control, which are installed or used by the Permittees, to achieve compliance with the Conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of backup or auxiliary facilities, or similar systems only when necessary to achieve compliance with the Conditions of the Permit.

I.E.8 Duty to Provide Information

The Permittees shall furnish to Ecology, within a reasonable time, any relevant information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittees shall also furnish to Ecology, upon request, copies of records required to be kept by this Permit.

I.E.9 Inspection and Entry

The Permittees shall allow Ecology, or authorized representatives, upon the presentation of Ecology credentials, to:

I.E.9.a During operating hours, and at all other reasonable times, enter and inspect the Facility or any unit or area within the Facility, where regulated activities are located or conducted, or where records must be kept under the Conditions of this Permit;

I.E.9.b Have access to, and copy, at reasonable times, any records that must be kept under the Conditions of this Permit;

I.E.9.c Inspect at reasonable times any portion of the Facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and,

I.E.9.d Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance, or as otherwise authorized by state law, as amended, for substances or parameters at any location.

I.E.10 Monitoring and Records

I.E.10.a Samples and measurements taken by the Permittees for the purpose of monitoring required by this Permit shall be representative of the monitored activity. Sampling methods shall be in accordance with WAC 173-303-110 or 40 CFR 261, unless otherwise specified in this Permit, or agreed to in writing by Ecology. Analytical methods shall be as specified in the most recently published test procedure of the documents cited in WAC 173-303-110(3)(a) through (d), unless otherwise specified in this Permit, or agreed to in writing by Ecology.

I.E.10.b The Permittees shall retain at the TSD unit(s), or other locations approved by Ecology, as specified in Parts III, V, and/or VI of this Permit, records of monitoring information required for compliance with this Permit, including calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of reports and records required by this Permit, and records of data used to complete the application for this Permit for a period of at least ten (10) years from the date of the sample, measurement, report, or application, unless otherwise required for certain information by other Conditions of this Permit. This information may be retained on electronic media.

I.E.10.c The Permittees shall retain at the Facility, or other approved location, records of all monitoring and maintenance records, copies of all reports and records required by this Permit, and records of all data used to complete the application for this Permit, which are not associated with a particular TSD unit, for a period of at least ten (10) years from the date of certification of completion of post-closure care, or corrective action for the Facility, whichever is later. This information may be retained on electronic media.

I.E.10.d The record retention period may be extended by request of Ecology at any time by notification, in writing, to the Permittees, and is automatically extended during the course of any unresolved enforcement action regarding this Facility to ten (10) years beyond the conclusion of the enforcement action.

I.E.10.e Records of monitoring information shall include:

i. The date, exact place and time of sampling or measurements;

ii. The individual who performed the sampling or measurements and their affiliation;

iii. The dates the analyses were performed;

iv. The individual(s) who performed the analyses and their affiliation;

v. The analytical techniques or methods used; and,

vi. The results of such analyses.

I.E.11 Reporting Planned Changes

The Permittees shall give notice to Ecology, as soon as possible, of any planned physical alterations, or additions to the Facility subject to this Permit. Such notice does not authorize any noncompliance with, or Modification of, this Permit.

I.E.12 Certification of Construction or Modification

The Permittees may not commence treatment, storage, or disposal of dangerous wastes in a new or modified portion of TSD units subject to this Permit until:

i. The Permittees have submitted to Ecology, by certified mail, overnight express mail, or hand delivery, a letter signed by the Permittees, and a registered professional engineer, stating that the TSD unit has been constructed or modified in compliance with the Conditions of this Permit; and,

ii. Ecology has inspected the modified or newly constructed TSD unit, and finds that it is in compliance with the Conditions of this Permit; or

iii. Within fifteen (15) days of the date of receipt of the Permittees' letter, the Permittees have not received notice from Ecology of its intent to inspect, prior inspection is waived, and the Permittees may commence treatment, storage, and disposal of dangerous waste.

I.E.13 Anticipated Noncompliance

The Permittees shall give at least thirty (30) days advance notice to Ecology of any planned changes in the Facility subject to this Permit, or planned activity which might result in noncompliance with Permit requirements.

If thirty (30) days advance notice is not possible, then the Permittees shall give notice immediately after the Permittees become aware of the anticipated noncompliance. Such notice does not authorize any noncompliance with, or Modification of, this Permit.

I.E.14 Transfer of Permits

This Permit may be transferred to a new owner only if it is modified, or revoked and reissued, pursuant to WAC 173-303-830(3)(b). The Permit may be transferred to a new Co-operator in accordance with the provisions of WAC 173-303-830(2). Before transferring ownership or operation of the Facility during its operating life, the Permittees shall notify the new owner or Co-operator, in writing, of the requirements of WAC 173-303-600 and -806, and this Permit.

I.E.15 Immediate Reporting

I.E.15.a The Permittees shall verbally report to Ecology any release of dangerous waste or hazardous substances, or any noncompliance with the Permit which may endanger human health or the environment. Any such information shall be reported immediately after the Permittees become aware of the circumstances.

I.E.15.b The immediate verbal report shall contain all the information needed to determine the nature and extent of any threat to human health and the environment, including the following:

a. Name, address, and telephone number of the Permittee responsible for the release or noncompliant activity;

b. Name, location, and telephone number of the unit at which the release occurred;

c. Date, time, and type of incident;

d. Name and quantity of material(s) involved;

e. The extent of injuries, if any;

f. An assessment of actual or potential hazard to the environment and human health, where this is applicable;

g. Estimated quantity of released material that resulted from the incident; and,

h. Actions which have been undertaken to mitigate the occurrence.

I.E.15.c The Permittees shall report, in accordance with Conditions I.E.15.a. and I.E.15.b., any information concerning the release, or unpermitted discharge, of any dangerous waste or hazardous substances that may cause an endangerment to drinking water supplies, or ground or surface waters, or of a release, or discharge of dangerous waste, or hazardous substances, or of a fire or explosion at the Facility, which may threaten human health or the environment. The description of the occurrence and its cause shall include all information necessary to fully evaluate the situation and to develop an appropriate course of action.

I.E.15.d For any release or noncompliance not required to be reported to Ecology immediately, a brief account must be entered within two (2) working days, into the TSD Operating Record, for a TSD unit, or into the Facility Operating Record, inspection log, or separate spill log, for non-TSD units. This account must include: the time and date of the release, the location and cause of the release, the type and quantity of material released, and a brief description of any response actions taken or planned.

I.E.15.e All releases, regardless of location of release, or quantity of release, shall be controlled and mitigated, if necessary, as required by WAC 173-303-145(3).

I.E.16 Written Reporting

Within fifteen (15) days after the time the Permittees become aware of the circumstances of any noncompliance with this Permit, which may endanger human health or the environment, the Permittees shall provide to Ecology a written report. The written report shall contain a description of the noncompliance and its cause (including the information provided in the verbal notification); the period of noncompliance including exact dates and times; the anticipated time noncompliance is expected to continue, if the noncompliance has not been corrected; corrective measures being undertaken to mitigate the situation, and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance

I.E.17 Manifest Discrepancy Report

I.E.17.a For dangerous waste received from outside the Facility, whenever a significant discrepancy in a manifest is discovered, the Permittees shall attempt to reconcile the discrepancy. If not reconciled within fifteen (15) days of discovery, the Permittees shall submit a letter report in accordance with WAC 173-303-370(4), including a copy of the applicable manifest or shipping paper, to Ecology.

I.E.17.b For dangerous waste which is being transported within the Facility (i.e., shipment of on-site generated dangerous waste), whenever a significant discrepancy in the shipping papers (see Condition II.Q.1.) is discovered, the Permittees shall attempt to reconcile the discrepancy. If not reconciled within fifteen (15) days of discovery, the Permittees shall note the discrepancy in the receiving unit's Operating Record.

I.E.18 Unmanifested Waste Report

The Permittees shall follow the provisions of WAC 173-303-370 for the receipt of any dangerous waste shipment from off-site. The Permittees shall also submit a report in accordance with WAC 173-303-390(1) to Ecology within fifteen (15) days of receipt of any unmanifested dangerous waste shipment received from off-site sources.

I.E.19 Other Noncompliance

The Permittees shall report to Ecology all instances of noncompliance, not otherwise required to be reported elsewhere in this Permit, at the time the Annual Dangerous Waste Report is submitted.

I.E.20 Other Information

Whenever the Permittees become aware that they have failed to submit any relevant facts in a Permit application, closure plan, or post-closure plan, or submitted incorrect information in a Permit application, closure plan, or post-closure plan, or in any report to Ecology, the Permittees shall promptly submit such facts or corrected information.

I.E.21 Reports, Notifications and Submissions

All written reports, notifications or other submissions, which are required by this Permit to be sent, or given to the Director or Ecology, should be sent certified mail, overnight express mail, or hand delivered, to the current address and telephone number shown below. This address and telephone number may be subject to change.

Department of Ecology
200 Area Section
1315 West Fourth Avenue
Kennewick, Washington 99336
Telephone: (509) 735-7581

Telephonic and oral reports/notifications also need to be provided to Ecology's Kennewick Office.

Ecology shall give the Permittees written notice of a change in address or telephone number. It is the responsibility of the Permittees to ensure any required reports, notifications, or other submissions are transmitted to the addressee listed in this Condition. However, the Permittees shall not be responsible for ensuring verbal and written correspondence reaches a new address or telephone number until after their receipt of Ecology's written notification.

I.E.22 Annual Report

The Permittees shall comply with the annual reporting requirements of WAC 173-303-390(2)(a) through (e), and (g).

I.F SIGNATORY REQUIREMENT

All applications, reports, or information submitted to Ecology, which require certification, shall be signed and certified in accordance with WAC 173-303-810(12) and (13). All other reports required by this Permit and other information requested by Ecology shall be signed in accordance with WAC 173-303-810(12).

I.G CONFIDENTIAL INFORMATION

The Permittees may declare as confidential any information required to be submitted by this Permit, at the time of submission, in accordance with WAC 173-303-810(15).

I.H DOCUMENTS TO BE MAINTAINED AT FACILITY SITE

The Permittees shall maintain at the Facility, or some other location approved by Ecology, the following documents and amendments, revisions, and modifications to these documents:

1. This Permit and all Attachments;
2. All dangerous waste Part B Permit applications, post-closure Permit applications; and closure plans; and,
3. The Facility Operating Record.

These documents shall be maintained for ten (10) years after post-closure care or corrective action for the Facility, whichever is later, has been completed and certified as complete.

II GENERAL FACILITY CONDITIONS

II.A FACILITY CONTINGENCY PLAN

II.A.1 The Permittees shall immediately carry out applicable provisions of the Hanford Emergency Response Plan as provided in Attachment 4, pursuant to WAC 173-303-360(2), whenever there is a release of dangerous waste, or dangerous waste constituents, or other emergency circumstance, either of which threatens human health or the environment.

II.A.2 The Permittees shall comply with the requirements of WAC 173-303-350(4), as provided in The Hanford Emergency Response Plan (Attachment 4). The Hanford Emergency Response Plan provides reference to the need for unit-specific contingency documentation included in Part III of this Permit.

II.A.3 The Permittees shall review and amend, if necessary, the applicable portions of the Hanford Emergency Response Plan, as provided in Attachment 4, pursuant to WAC 173-303-350(5), and in accordance with the provisions of WAC 173-303-830(4). The Permittees shall be able to demonstrate how Amendments to the applicable portions are controlled. The plan shall be amended within a period of time agreed upon by Ecology.

II.A.4 The Permittees shall comply with the requirements of WAC 173-303-350(3) and -360(1) concerning the emergency coordinator, except the names and home telephone numbers will be on file with the single point-of-contact, phone number (509) 373-3800 or 375-2400 (for PNNL units) as described in the Hanford Emergency Response Plan.

II.B PREPAREDNESS AND PREVENTION

II.B.1 The Permittees shall equip the Facility with the equipment specified in WAC 173-303-340(1) as specified in the Hanford Emergency Response Plan (Attachment 4). Unit-specific preparedness and prevention provisions are included in Parts III, V, and/or VI of this Permit.

II.B.2 The Permittees shall test and maintain the equipment specified in the previous Condition as necessary to assure proper operation in the event of emergency.

II.B.3 The Permittees shall maintain access to communications or alarms pursuant to WAC 173-303-340(2), as provided in the Hanford Emergency Response Plan (Attachment 4) and unit-specific contingency plans.

II.B.4 The Permittees shall comply with WAC 173-303-340(4) and WAC 173-303-355(1) pertaining to arrangements with local authorities.

II.C PERSONNEL TRAINING

II.C.1 The Permittees shall conduct personnel training as required by WAC 173-303-330. The Permittees shall maintain documents in accordance with WAC 173-303-330(2) and (3). Training records may be maintained in the Hanford Facility Operating Record, or on electronic data storage.

II.C.2 All Hanford Facility personnel shall receive general Facility training within six (6) months of hire. This training shall provide personnel with orientation of dangerous waste management activities being conducted at the Hanford Facility. This training shall include:

II.C.2.a. Description of emergency signals and appropriate personnel response;

II.C.2.b. Identification of contacts for information regarding dangerous waste management activities;

II.C.2.c. Introduction to waste minimization concepts;

II.C.2.d. Identification of contact(s) for emergencies involving dangerous waste; and

II.C.2.e. Familiarization with the applicable portions of the Hanford Emergency Response Plan.

II.C.3 Description of training plans for personnel assigned to TSD units subject to this Permit are delineated in the unit-specific Chapters in Parts III, V, and/or VI of this Permit.

II.C.4 The Permittees shall provide the necessary training to non-Facility personnel (i.e., visitors, sub-contractors), as appropriate, for the locations of such personnel, and the activities that will be undertaken. At a minimum, this training shall describe dangerous waste management hazards at the Facility.

II.D WASTE ANALYSIS

II.D.1 All waste analyses required by this Permit shall be conducted in accordance with a written waste analysis plan (WAP), or sampling and analysis plan (SAP). Operating TSD units shall have a WAP, which shall be approved through incorporation of the TSD unit into Part III of this Permit. Closing TSD units, and units in post-closure, should have a SAP and, if necessary, a WAP, which shall be approved through incorporation of the TSD unit into Part V and/or VI of this Permit.

II.D.2 Until a WAP is implemented in accordance with Condition II.D.1., any unit(s) identified in Parts III, V, and/or VI of this Permit, without a unit-specific WAP approved by Ecology, shall not treat, store, or dispose of dangerous waste, unless specified otherwise by Ecology in writing.

II.D.3 Each TSD unit WAP shall include:

i. The parameters for which each dangerous waste will be analyzed, and the rationale for selecting these parameters; (i.e., how analysis for these parameters will provide sufficient information on the waste properties to comply with WAC 173-303-300(1), (2), (3), and (4);

ii. The methods of obtaining or testing for these parameters;

iii. The methods for obtaining representative samples of wastes for analysis (representative sampling methods are discussed in WAC 173-303-110(2);

iv. The frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current;

v. The waste analyses which generators have agreed to supply;

vi. Where applicable, the methods for meeting the additional waste analysis requirements for specific waste management methods, as specified in WAC 173-303-140(4)(b), 173-303-395(1), 173-303-630 through 173-303-670, and 40 CFR 264.1034, 264.1063, 284(a), and 268.7, for final status facilities;

vii. For off-site facilities, the procedures for confirming that each dangerous waste received matches the identity of the waste specified on the accompanying manifest, or shipping paper. This includes at least:

(1) The procedure for identifying each waste movement at the Facility; and,

(2) The method for obtaining a representative sample of the waste to be identified, if the identification method includes sampling.

viii. For surface impoundments exempted from Land Disposal Restrictions (LDR) under 40 CFR 268.4(a), incorporated by reference in WAC 173-303-140(2), the procedures and schedules for:

- The sampling of impoundment contents;
- The analysis of test data; and
- The annual removal of residues that are not delisted under 40 CFR 260.22, or which exhibit a characteristic of hazardous waste and either;

A) Do not meet applicable treatment standards of 40 CFR Part 268, Subpart D; or

B) Where no treatment standards have been established:

i) Such residues are prohibited from land disposal under 40 CFR 268.32, or RCRA section 3004(d); or

ii) Such residues are prohibited from land disposal under 40 CFR 268.33(f); and

ix. For off-site facilities, the procedures for confirming that each dangerous waste received matches the identity of the waste specified on the accompanying manifest, or shipping paper. This includes, at least:

(1) The procedure for identifying each waste movement at the Facility; and

(2) The method for obtaining a representative sample of the waste to be identified, if the identification method includes sampling.

II.D.4 Should waste analysis be required by this Permit at a location on the Facility, other than at a TSD unit, a SAP shall be maintained by the Permittees, and made available upon request from Ecology. Any SAP required by this Permit, not associated with a particular TSD unit, shall include the elements of Conditions II.D.3.(i) through II.D.3.(iv).

II.E QUALITY ASSURANCE/QUALITY CONTROL

II.E.1 All WAPs and SAPs required by this Permit shall include a quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements defined in Conditions II.E.2. and II.E.3. The QA/QC plan may be part of a SAP, WAP, or equivalent.

II.E.2 Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following:

II.E.2.a Data Collection Strategy section including, but not limited to, the following:

a. A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and,

b. A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data;

II.E.2.b A Sampling section which shall include or describe, and reference or cite:

a. Sampling methods including the identification of sampling equipment, a description of purging procedures, and a description of decontamination procedures to be used;

b. Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection points and frequencies;

c. Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process;

d. Methods for, or specification of, measuring all necessary ancillary data;

e. Criteria for, or specification of, determining conditions under which sampling should be conducted;

f. Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured;

g. Criteria for, or specification of, identifying the type of sampling (e.g., composites vs. grabs), and number of samples to be collected;

h. Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points;

i. Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including:

(1) Documentation of procedures for preparation of reagents or supplies, which become an integral part of the sample (e.g., filters and absorbing reagents);

(2) Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples;

(3) Documentation of specific sample preservation method;

(4) Calibration of field devices;

(5) Collection of replicate samples;

(6) Submission of field-biased blanks, where appropriate;

(7) Potential interferences present at the facility;

(8) Field equipment listing and sample containers;

(9) Sampling order; and,

(10) Descriptions of decontamination procedures.

j. Selection of appropriate sample containers, as applicable;

k. Sample preservation methods, as applicable; and,

l. Chain-of-custody procedure descriptions as applicable, including:

(1) Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and,

(2) Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label.

II.E.2.c Where applicable, a field measurements section which shall address:

a. Selecting appropriate field measurement locations, depths, etc.;

b. Providing a statistically sufficient number of field measurements as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the DQO process;

c. Measuring all necessary ancillary data;

d. Determining conditions under which field measurements should be conducted;

e. Determining which media are to be addressed by appropriate field measurements (e.g., ground water, air, soil, sediment, etc.);

f. Determining which parameters are to be measured and where;

g. Selecting the frequency of field measurement and length of field measurement period; and,

h. Documenting field measurement operations and procedures, including:

(1) Descriptions of procedures and forms for recording raw data and the specific location, time, and sampling conditions;

(2) Calibration of field devices;

(3) Collection of replicate measurements;

(4) Submission of field-biased blanks, where appropriate;

(5) Potential interferences present at the facility;

(6) Field equipment listing; and,

(7) Descriptions of decontamination procedures.

II.E.2.d Where applicable, a Sample Analysis Section which shall specify the following:

i. Chain-of-custody procedures, including:

(1) Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records;

(2) Provision for a laboratory sample custody log; and,

(3) Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis.

ii. Sample storage procedure descriptions and storage times;

iii. Sample preparation methods;

iv. Descriptions of analytical procedures, including:

(1) Scope and application of the procedure;

(2) Sample matrix;

(3) Potential interferences;

(4) Precision and accuracy of the methodology; and,

(5) Method detection limits.

v. Descriptions of calibration procedures and frequency;

vi. Data reduction, validation, and reporting;

vii. Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, including:

(1) Method blank(s);

(2) Laboratory control sample(s);

(3) Calibration check sample(s);

(4) Replicate sample(s);

(5) Matrix-spiked sample(s);

(6) "Blind" quality control;

(7) Control charts;

(8) Surrogate samples;

(9) Zero and span gases; and,

(10) Reagent quality control checks.

II.E.3 Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions. The Data Management Plan shall include the following as applicable:

II.E.3.a A data record including the following:

a. Unique sample or field measurement code;

b. Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type;

c. Sampling or field measurement raw data;

d. Laboratory analysis identification (ID) number;

e. Result of analysis (e.g., concentration);

f. Elevations of reference points for all ground water level measurements, including water level elevation, top of casing elevation, and ground surface elevation; and,

g. Magnetic computer records of all ground water, soil, surface water, and sediment analytical data.

Tabular displays, as appropriate, illustrating:

a. Unsorted validated and invalidated data;

b. Results for each medium and each constituent monitored;

c. Data reduction for statistical analysis;

d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and,

e. Summary data.

II.E.3.b Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following:

a. Displays of sampling location and sampling grid;

b. Identification of boundaries of sampling area and areas where more data is required;

c. Displays of concentrations of contamination at each sampling location;

d. Displays of geographical extent of contamination;

e. Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility;

f. Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters;

g. Identification of features affecting intramedia transport and identification of potential receptors;

h. For each round of ground water level measurements, maps showing the distribution of head measurements in each aquifer; and,

i. For each well, provide a hydrograph that shows the distribution of water level measurements taken during the time interval of the investigation.

II.E.4 Unless otherwise agreed upon in writing by Ecology, the Permittees shall provide notification of availability to Ecology of all data obtained pursuant to this Permit within thirty (30) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within thirty (30) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. This notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to this Permit.

II.E.5 The level of QA/QC for the collection, preservation, transportation, and analysis of each sample which is required for implementation of this Permit, may be based upon Ecology approved DQO for the sample. These DQOs shall be approved by Ecology, in writing, or through incorporation of unit plans and Permits into Parts III, V, and/or VI of this Permit.

II.F GROUND WATER AND VADOSE ZONE MONITORING

The Permittees shall comply with the ground water monitoring requirements of WAC 173-303-645. This Condition shall apply only to those wells the Permittees use for the ground water monitoring programs applicable to the TSD units incorporated into Parts III, V, and/or VI of this Permit. Where releases from TSD units subject to this Permit have been documented or confirmed by investigation, or where vadose zone monitoring is proposed for integration with ground water monitoring, the Permittees shall evaluate the applicability of vadose zone monitoring. The Permittees shall consult with Ecology regarding the implementation of these requirements. If agreed to by Ecology, integration of ground water and vadose zone monitoring, for reasons other than this Permit, may be accommodated by this Permit. Results from other investigation activities shall be used whenever possible to supplement and/or replace sampling required by this Permit.

II.F.1 Purgewater Management

Purgewater shall be handled in accordance with the requirements set forth in Attachment 5, *Purgewater Management Plan*.

II.F.2 Well Remediation and Abandonment

II.F.2.a The Permittees shall inspect the integrity of active resource protection wells as defined by WAC 173-160-030, subject to this Permit, at least once every five (5) years. These inspections shall be recorded in the Operating Record. The Permittees shall prepare and maintain a plan and schedule by January 26, 1995, specifying the schedule and technical standards for this program. The Permittees shall provide a copy of this plan upon the request of Ecology.

II.F.2.b The Permittees shall evaluate resource protection wells subject to this Permit according to Sections 4.1. through 4.8.3. of the *Hanford Well Remediation and Decommissioning Plan* (Attachment 6) and the Policy on Remediation of Existing Wells and Acceptance Criteria for RCRA and CERCLA, June 1990 (Attachment 7), to determine if a well has a potential use as a qualified well. The Permittees shall abandon or remediate unusable wells according to the requirements of Chapter 18.104 RCW, Chapter 173-160 WAC, and Chapter 173-162 WAC to ensure that the integrity of wells subject to this Permit is maintained. The time frame for this remediation will be specified in Parts III, V, and/or VI of this Permit.

II.F.2.c Ecology shall receive notice in writing at least seventy-two (72) hours before the Permittees remediate (excluding maintenance activities), or abandon any well subject to this Permit.

II.F.2.d For wells subject to this Permit, the Permittees shall achieve full compliance with Chapter 173-160 WAC and Chapter 18.104 RCW consistent with a rolling five (5) year schedule agreed to by Ecology and the Permittees. This process shall be completed by the year 2012.

II.F.3 Well Construction

All wells constructed pursuant to this Permit shall be constructed in compliance with Chapter 173-160 WAC.

II.G SITING CRITERIA

The Permittees shall comply with the applicable notice of intent and siting criteria of WAC 173-303-281 and WAC 173-303-282, respectively.

II.H RECORDKEEPING AND REPORTING

In addition to the recordkeeping and reporting requirements specified elsewhere in this Permit, the Permittees shall comply with the following:

II.H.1 Cost Estimate for Facility Closure

The Permittees shall submit an annual report updating projections of anticipated costs for closure and post-closure of TSD units incorporated into Parts III, V, and/or VI of this Permit. This report will be submitted annually, by October 31, to Ecology and reflect cost updates as of September 30, of the past Fiscal Year.

II.H.2 Cost Estimate for Post-Closure Monitoring and Maintenance

The Permittees shall submit an annual report updating projections of anticipated costs for post-closure monitoring and maintenance for TSD units incorporated into Parts III, V, and/or VI of this Permit. This report will be submitted annually, by October 31, to Ecology and reflect cost updates as of September 30, of the past Fiscal Year.

II.H.3 The Permittees are exempt from the requirements of WAC 173-303-620

II.I FACILITY OPERATING RECORD

II.I.1 The Permittees shall maintain a written Facility Operating Record until ten (10) years after post-closure, or corrective action is complete and certified for the Facility, whichever is later. Except as specifically provided otherwise in this Permit, the Permittees shall also record all information referenced in this Permit in the Facility Operating Record within seven (7) working days after the information becomes available. A TSD unit-specific Operating Record shall be maintained for each TSD unit at a location identified in Parts III, V, and VI of this Permit. Each TSD unit-specific Operating Record shall be included by reference in the Facility Operating Record. Information required in each TSD unit-specific Operating Record is identified on a unit-by-unit basis in Part III, V, or VI of this Permit. The Facility Operating Record shall include, but not be limited to, the following information:

II.I.1.a A description of the system(s) currently utilized to identify and map solid waste management units and their locations. The description of the system(s) is required to include an identification of on-site access to the system's data, and an on-site contact name and telephone number. In addition to, or as part of, this system(s), the Permittees shall also maintain a list identifying active ninety (90)-day waste storage areas, and dangerous waste satellite accumulation areas and their locations. The list shall identify the location, the predominant waste types managed at the area, and a date identifying when the list was compiled. Maps shall be provided by the Permittees upon request by Ecology;

II.I.1.b Records and results of waste analyses required by WAC 173-303-300;

II.I.1.c An identification of the system(s) currently utilized to generate Occurrence Reports. The identification of the system(s) is required to include a description, an identification of an on-site location of hard-copy Occurrence Reports, an identification of on-site access to the system's data, and an on-site contact name and telephone number;

II.I.1.d Copies of all unmanifested waste reports;

II.I.1.e The Hanford Emergency Response Plan, as well as summary reports, and details of all incidents that require implementing the contingency plan, as specified in WAC 173-303-360(2)(k);

II.I.1.f An identification of the system(s) currently utilized and being developed to record personnel training records and to develop training plans. The identification of the system(s) is required to include a description, an identification of on-site access to the system's data, and an on-site contact name and telephone number;

II.I.1.g Preparedness and prevention arrangements made pursuant to WAC 173-303-340(4) and documentation of refusal by state or local authorities that have declined to enter into agreements in accordance with WAC 173-303-340(5);

II.I.1.h Reserved Condition

II.I.1.i An identification and description of the report containing closure and post-closure cost estimates required by Conditions II.H.1. and II.H.2. The identification shall provide the on-site location and document number of the report;

II.I.1.j Documentation (e.g., waste profile sheets) of all dangerous waste transported to or from any TSD unit subject to this Permit. This documentation shall be maintained in the receiving unit's Operating Record from the time the waste is received;

II.I.1.k An identification of the system(s) currently utilized to cross-reference waste locations to specific manifest document numbers. The identification of the system(s) is required to include a thorough description, an identification of an on-site location of a hard-copy data report, an identification of on-site access to the system's data, and an on-site contact name and telephone number;

II.I.1.l Reserved Condition

II.I.1.m Annual Reports required by this Permit;

II.I.1.n An identification of all systems currently utilized to record monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation. The identification of systems shall include a description of the systems. The descriptions shall include a confirmation that the criteria of Condition I.E.10.e. is provided by the utilization of the system. The identification of the systems shall also include an identification of on-site access to the system's data, an on-site contact name and telephone number;

II.I.1.o Reserved Condition

II.I.1.p Summaries of all records of ground water corrective action required by WAC 173-303-645;

II.I.1.q An identification of the system(s) currently being utilized and being developed to evaluate compliance with the Conditions of this Permit and with Chapter 173-303 WAC. The identification of the system(s) shall include a description of the system(s), an identification of on-site access to the system's data, and an on-site contact name and telephone number. The description of the system(s) shall also include a definition of which portion(s) of the system(s) is accessible to Ecology;

II.I.1.r All deed notifications required by this Permit (to be included by reference);

II.I.1.s All inspection reports required by this Permit; and,

II.I.1.t All other reports as required by this Permit, including ECNs and NCRs.

II.I.2 The descriptions of systems and/or reports required in Conditions II.I.1.a., II.I.1.c., II.I.1.f., II.I.1.i., II.I.1.k., II.I.1.n., and II.I.1.q., shall be placed in the Facility Operating Record, by September 28, 1995.

II.J FACILITY CLOSURE

II.J.1 Final closure of the Hanford Facility will be achieved when closure activities for all TSD units have been completed, as specified in Parts III, IV, V, or VI of this Permit. Completion of these activities shall be documented using either certifications of closure, in accordance with WAC 173-303-610(6), or certifications of completion of post-closure care, in accordance with WAC 173-303-610(11).

II.J.2 The Permittees shall close all TSD units as specified in Parts III, V, and/or VI of this Permit.

II.J.3 The Permittees shall submit a written notification of, or request for, a Permit Modification in accordance with the provisions of WAC 173-303-610(3)(b), whenever there is a change in operating plans, facility design, or the approved closure plan. The written notification or request must include a copy of the amended closure plan for review, or approval, by Ecology.

II.J.4 The Permittees shall close the Facility in a manner that:

II.J.4.a. Minimizes the need for further maintenance;

II.J.4.b. Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of dangerous waste, dangerous constituents, leachate, contaminated run-off, or dangerous waste decomposition products, to the ground, surface water, ground water, or the atmosphere; and,

II.J.4.c. Returns the land to the appearance and use of surrounding land areas to the degree possible, given the nature of the previous dangerous waste activity.

II.J.4.d. Meets the requirements of WAC 173-303-610(2)(b).

II.K SOIL/GROUND WATER CLOSURE PERFORMANCE STANDARDS

II.K.1 For purposes of Condition II.K., the term "clean closure" shall mean the status of a TSD unit at the Facility which has been closed to the cleanup levels prescribed by WAC 173-303-610(2)(b), provided certification of such closure has been accepted by Ecology.

II.K.2 The Permittees may close a TSD unit to background levels as defined in Ecology approved Hanford Site Background Documents, if background concentrations exceed the levels prescribed by Condition II.K.1. Closure to these levels, provided the Permittees comply with all other closure requirements for a TSD unit as identified in Parts III, V, and/or VI of this Permit, shall be deemed as "clean closure."

II.K.3 Except for those TSD units identified in Conditions II.K.1., II.K.2., or II.K.4., the Permittees may close a TSD unit to a cleanup level specified under Method C of Chapter 173-340 WAC. Closure of a TSD unit to these levels, provided the Permittees comply with all other closure requirements for the TSD unit as specified in Parts III, V, and/or VI of the Permit, and provided the Permittees comply with Conditions II.K.3.a. through II.K.3.c., shall be deemed as a "modified closure."

II.K.3.a For "modified closures," the Permittees shall provide institutional controls in accordance with WAC 173-340-440 which restricts access to the TSD unit for a minimum of five (5) years following completion of closure. The specific details and duration of institutional controls shall be specified in Parts III, V, and/or VI of this Permit for a particular TSD unit.

II.K.3.b For "modified closures," the Permittees shall provide periodic assessments of the TSD unit to determine the effectiveness of the closure. The specific details of the periodic assessments shall be specified in Parts III, V, and/or VI of this Permit. The periodic assessments shall include, as a minimum, a compliance monitoring plan in accordance with WAC 173-340-410 that will address the assessment requirements on a unit-by-unit basis. At least one (1)

assessment activity shall take place after a period of five (5) years from the completion of closure, which will demonstrate whether the soils and ground water have been maintained at or below the allowed concentrations as specified in Parts III, V, or VI of this Permit. Should the required assessment activities identify contamination above the allowable limits as specified in Parts III, V, and/or VI, the TSD unit must be further remediated, or the requirements of II.K.4. must be followed. Should the required assessment activities demonstrate that contamination has diminished, or remained the same, the Permittees may request that Ecology reduce, or eliminate the assessment activities and/or institutional controls.

II.K.3.c For "modified closures," the Permittees shall specify the particular activities required by this Condition in a Post-Closure Permit application.

II.K.4 Any TSD unit for which Conditions II.K.1., II.K.2., or II.K.3., are not chosen as the closure option, closing the TSD unit as a landfill may be selected. Closure and post-closure of the TSD unit as a landfill, must follow the procedures and requirements specified in WAC 173-303-610.

II.K.5 The cleanup option selected shall be specified in Parts III, V, and/or VI of this Permit, and shall be chosen with consideration of the potential future site use for that TSD unit/area. Definitions contained within Chapter 173-340 WAC shall apply to Condition II.K. Where definitions are not otherwise provided by this Permit, the FFACO, or Chapter 173-303 WAC.

II.K.6 Deviations from a TSD unit closure plan required by unforeseen circumstances encountered during closure activities, which do not impact the overall closure strategy, but provide equivalent results, shall be documented in the TSD unit-specific Operating Record and made available to Ecology upon request, or during the course of an inspection.

II.K.7 Where agreed to by Ecology, integration of other statutorily or regulatory mandated cleanups may be accommodated by this Permit. Results from other cleanup investigation activities shall be used whenever possible to supplement and/or replace TSD unit closure investigation activities. All, or appropriate parts of, multipurpose cleanup and closure documents can be incorporated into this Permit through the Permit Modification process. Cleanup and closures conducted under any statutory authority, with oversight by either Ecology or the EPA, which meet the equivalent of the technical requirements of Conditions II.K.1. through II.K.4., may be considered as satisfying the requirements of this Permit.

II.L DESIGN AND OPERATION OF THE FACILITY

II.L.1 Proper Design and Construction

The Permittees shall design, construct, maintain, and operate the Facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous substances to air, soil, ground water, or surface water, which could threaten human health, or the environment.

II.L.2 Design Changes, Nonconformance, and As-Built Drawings

II.L.2.a The Permittees shall conduct all construction subject to this Permit in accordance with the approved designs, plans and specifications that are required by this Permit, unless authorized otherwise in Conditions II.L.2.b. or II.L.2.c. For purposes of Conditions II.L.2.b. and II.L.2.c., an Ecology construction inspector, or TSD unit manager, are designated representatives of Ecology.

II.L.2.b During construction of a project subject to this Permit, changes to the approved designs, plans and specifications shall be formally documented with an Engineering Change Notice (ECN). All ECNs shall be maintained in the TSD unit-specific Operating Record and shall be made available to Ecology upon request or during the course of an inspection. The Permittees shall provide copies of ECNs affecting any critical system to Ecology within five (5) working days of initiating the ECN. Identification of critical systems shall be included by the Permittees in each TSD unit-specific dangerous waste Permit application, closure plan or Permit Modification, as appropriate. Ecology will review an ECN modifying a critical system, and inform the Permittees in writing within two (2) working days, whether the proposed ECN, when issued, will require a Class 1, 2, or 3 Permit Modification. If after two (2) working days Ecology has not responded, it will be deemed as acceptance of the ECN by Ecology.

II.L.2.c During construction of a project subject to this Permit, any work completed which does not meet or exceed the standards of the approved design, plans and specifications shall be formally documented with a Nonconformance Report (NCR). All NCRs shall be maintained in the TSD unit-specific Operating Record and shall be made available to Ecology upon request, or during the course of an inspection. The Permittees shall provide copies of NCRs affecting any critical system to Ecology within five (5) working days after identification of the nonconformance. Ecology will review a NCR affecting a critical system and inform the Permittees in writing, within two (2) working days, whether a Permit Modification is required for any nonconformance, and whether prior approval is required from Ecology before work proceeds, which affects the nonconforming item. If Ecology does not respond within two (2) working days, it will be deemed as acceptance and no Permit Modification will be required.

II.L.2.d Upon completion of a construction project subject to this Permit, the Permittees shall produce as-built drawings of the project which incorporate the design and construction modifications resulting from all project ECNs and NCRs, as well as modifications made pursuant to WAC 173-303-830. The Permittees shall place the drawings into the Operating Record within twelve (12) months of completing construction, or within an alternate period of time specified in a unit-specific Condition in Part III or V of this Permit.

II.L.3 Facility Compliance

The Permittees in receiving, storing, transferring, handling, treating, processing, and disposing of dangerous waste, shall design, operate, and/or maintain the Facility in compliance with all applicable federal, state, and local laws and regulations.

II.M SECURITY

The Permittees shall comply with the security provisions of WAC 173-303-310. The Permittees may comply with the requirements of WAC 173-303-310(2) on a unit-by-unit basis.

II.N RECEIPT OF DANGEROUS WASTES GENERATED OFF-SITE

II.N.1 Receipt of Off-Site Waste

The Permittees shall comply with Conditions II.N.2. and II.N.3. for any dangerous wastes which are received from sources outside the United States, or from off-site generators.

II.N.2 Waste From Sources Outside the United States

The Permittees shall meet the requirements of WAC 173-303-290(1) for waste received from outside the United States.

II.N.3 Notice to Generator

For waste received from off-site sources (except where the owner/operator is also the generator), the Permittees shall inform the generator in writing that they have the appropriate Permits for, and will accept, the waste the generator is shipping, as required by WAC 173-303-290(3). The Permittees shall keep a copy of this written notice as part of the TSD unit-specific Operating Record.

II.O GENERAL INSPECTION REQUIREMENTS

II.O.1 The Permittees shall inspect the Facility to prevent malfunctions and deterioration, operator errors, and discharges, which may cause or lead to the release of dangerous waste constituents to the environment, or threaten human health. Inspections must be conducted in accordance with the provisions of WAC 173-303-320(2). In addition to the TSD unit inspections specified in Parts III, V, and/or VI, the following inspections will also be conducted:

II.O.1.a The 100, 200 East, 200 West, 300, 400, and 1100 areas shall be inspected annually.

II.O.1.b The Permittees shall inspect the banks of the Columbia River, contained within the Facility boundary, two (2) times yearly. One (1) inspection shall occur at the low water mark of the year and one (1) inspection shall occur at a time chosen by the Permittees. These inspections shall be performed from the river, by boat, and the inspectors shall follow the criteria in Condition II.O.1.c.

II.O.1.c The Permittees shall visually inspect the areas identified in Conditions II.O.1.a. and II.O.1.b. for malfunctions, deterioration, operator errors, and discharges which may cause or lead to the release of dangerous waste constituents to the environment, or that threaten human health. Specific items to be noted are as follows:

i. Remains of waste containers, labels, or other waste management equipment;

ii. Solid waste disposal sites not previously identified for remedial action;

iii. Uncontrolled waste containers (e.g., orphan drums);

iv. Temporary or permanent activities that could generate an uncontrolled waste form; and,

v. Unpermitted waste discharges.

II.O.1.d The Permittees shall notify Ecology at least seven (7) days prior to conducting these inspections in order to allow representatives of Ecology to be present during the inspections.

II.O.2 If the inspection by the Permittees, conducted pursuant to Condition II.O.1., reveals any problems, the Permittees shall take remedial action on a schedule agreed to by Ecology.

II.O.3 The inspection of high radiation areas will be addressed on a case-by-case basis in either Part III of this Permit, or prior to the inspections required in Condition II.O.1.

II.P MANIFEST SYSTEM

II.P.1 The Permittees shall comply with the manifest requirements of WAC 173-303-370 for waste received from off-site and WAC 173-303-180 for waste shipped off-site.

II.P.2 Transportation of dangerous wastes along State Highways 240, 24, and 243, and Route 4 South (Stevens Drive) south of the Wye Barricade, if such routes are not closed to general public access at the time of shipment, shall be manifested pursuant to Condition II.P.1.

II.Q ON-SITE TRANSPORTATION

II.Q.1 Documentation must accompany any on-site dangerous waste which is transported to or from any TSD unit subject to this Permit, through or within the 600 Area, unless the roadway is closed to general public access at the time of shipment. Waste transported by rail or by pipeline is exempt from this Condition. This documentation shall include the following information, unless other unit-specified provisions are designated in Part III or V of this Permit:

II.Q.1.a Generator's name, location, and telephone number;

II.Q.1.b Receiving TSD unit's name, location, and telephone number;

II.Q.1.c Description of waste;

II.Q.1.d Number and type of containers;

II.Q.1.e Total quantity of waste;

II.Q.1.f Unit volume/weight;

II.Q.1.g Dangerous waste number(s); and,

II.Q.1.h Any special handling instructions.

II.Q.2 All non-containerized solid, dangerous waste transported to or from TSD units, subject to this Permit, shall be covered to minimize the potential for material to escape during transport.

II.R EQUIVALENT MATERIALS

II.R.1 The Permittees may substitute an equivalent or superior product for any equipment or materials specified in this Permit. Use of equivalent or superior products shall not be considered a Modification of this Permit. A substitution will not be considered equivalent unless it is at least as effective as the original equipment or materials in protecting human health and the environment.

II.R.2 The Permittees shall place in the Operating Record (within seven [7] days after the change is put into effect) the substitution documentation, accompanied by a narrative explanation, and the date the substitution became effective. Ecology may judge the soundness of the substitution.

II.R.3 If Ecology determines that a substitution was not equivalent to the original, it will notify the Permittees that the Permittees' claim of equivalency has been denied, of the reasons for the denial, and that the original material or equipment must be used. If the product substitution is denied, the Permittees shall comply with the original approved product specification, or find an acceptable substitution.

II.S LAND DISPOSAL RESTRICTIONS (LDR)

Unless specifically identified otherwise in the FFACO, the Permittees shall comply with all LDR requirements as set forth in WAC 173-303-140.

II.T ACCESS AND INFORMATION

To the extent that work required by this Permit must be done on property not owned or controlled by the Permittees, the Permittees must utilize their best efforts to obtain access and information at these locations.

II.U MAPPING OF UNDERGROUND PIPING

II.U.1 By September 30, 1996, the Permittees shall submit a report to Ecology, which describes the procedures proposed to be used to compile the information required by Conditions II.U.2., II.U.3., and II.U.4. The report shall describe the methods which will be used to retrieve the piping information, the estimated accuracy of the data to be provided, QA/QC control techniques to be employed, including field verification activities (i.e., surveying, ground penetrating radar, etc.), to support information gathered from existing drawings, and conceptual examples of the product which will be submitted.

II.U.2 By September 29, 1997, the Permittees shall make an initial submittal to Ecology of maps showing the location of dangerous waste underground pipelines (including active, inactive, and abandoned pipelines which contain or contained dangerous waste subject to the provisions of Chapter 173-303 WAC), on the Facility, which are located outside of the fences enclosing the 200 East, 200 West, 300, 400, 100N, and 100K Areas. These maps shall identify the origin, destination, size, depth, and type (i.e., reinforced concrete, stainless steel, cast iron, etc.), of each pipe and the location of their diversion boxes, valve pits, seal pots, catch tanks, receiver tanks, and pumps, utilizing Washington State Plane Coordinates, NAD 83(91), meters. If the type of pipe material is not documented on existing drawings, the most probable material type shall be provided. These maps shall be accompanied by a description of the QA/QC control measures used to compile the maps.

The age of all pipes required to be identified pursuant to this Condition, shall be documented in an Attachment to the submittal. If the age cannot be documented, an estimate of the age of the pipe shall be provided, based upon best engineering judgment.

These maps, and any Attachments, shall be maintained in the Facility Operating Record and updated annually, after the initial submittal, with new or revised information. Each map submittal required by this Condition shall incorporate information available six (6) months before the scheduled submittal date.

II.U.3 By September 28, 1998, the Permittees shall make an initial submittal to Ecology of piping schematics for dangerous waste underground pipelines (including active, inactive, and abandoned pipelines, which contain or contained dangerous waste subject to the provisions of Chapter 173-303 WAC) within the 200 East, 200 West, 300, 400, 100N, and 100K Areas. The piping schematics shall identify the origin, destination, and direction of flow for each pipe, as well as whether the pipe is active, inactive, or abandoned. These schematics need not include the pipes within a fenced tank farm, or within a building/structure. These schematics shall be accompanied by a description of the QA/QC control measures used to compile the maps.

These schematics and any Attachments, shall be maintained in the Facility Operating Record and updated annually, after the initial submittal, with new or revised information. Each map submittal required by this Condition shall incorporate information available six (6) months before the scheduled submittal date.

II.U.4 By September 28, 1998, the Permittees shall make an initial submittal, to Ecology, of maps showing the location of dangerous waste underground pipelines (including active, inactive, and abandoned pipelines, which contain or contained dangerous waste, subject to the provisions of Chapter 173-303 WAC) within the 200 East, 200 West, 300, 400, 100N, and 100K Areas. These maps will incorporate information available six (6) months prior to the scheduled submittal date. Thereafter, the maps will be updated on an annual basis to incorporate additional information, as such information becomes available in accordance with the FFACO milestone schedule. A schedule for the provision of map input shall be included in the report specified in Condition II.U.1.

The maps shall identify the origin, destination, size, depth and type (i.e., reinforced concrete, stainless steel, cast iron, etc.), of each pipe, and the location of their diversion boxes, valve pits, seal pots, catch tanks, receiver tanks, and pumps, and utilize Washington State Plane Coordinates, NAD 83(91), meters. If the type of pipe material is not documented on existing drawings, the most probable material type shall be provided. These maps need not include the pipes within a fenced tank farm or within a building/structure. These maps shall be accompanied by a description of the QA/QC control used to compile the maps.

The age of all pipes required to be identified pursuant to this Condition shall be documented in an Attachment to the submittal. If the age cannot be documented, an estimate of the age of the pipe shall be provided based upon best engineering judgment.

These maps, and any Attachments, shall be maintained in the Facility Wide Operating Record and updated annually, after the initial submittal, with new or revised information.

II.V MARKING OF UNDERGROUND PIPING

By September 29, 1997, the Permittees shall mark the underground pipelines identified in Condition II.U.2. These pipelines shall be marked at the point they pass beneath a fence enclosing the 200 East, 200 West, 300, 400, 100N, or 100K Areas, at their origin and destination, at any point they cross an improved road, and every 100 meters along the pipeline corridor where practicable. The markers shall be labeled with a sign that reads "Buried Dangerous Waste Pipe" and shall be visible from a distance of fifteen (15) meters.

II.W OTHER PERMITS AND/OR APPROVALS

II.W.1 The Permittees shall be responsible for obtaining all other applicable federal, state, and local Permits authorizing the development and operation of the Facility. To the extent that work required by this Permit must be done under a Permit and/or approval pursuant to other regulatory authority, the Permittees shall use their best efforts to obtain such Permits. Copies of all documents relating to actions taken, pursuant to this Condition, shall be kept in the Operating Record.

II.W.2 All other Permits related to dangerous waste management activities are severable and enforceable through the permitting authority under which they are issued.

II.W.3 All air emissions from TSD units subject to this Permit shall comply with all applicable state and federal regulations pertaining to air emission controls, including but not limited to, Chapter 173-400 WAC, General Regulations for Air Pollution Sources; Chapter 173-460 WAC, Controls for New Sources of Toxic Air Pollutants; and Chapter 173-480 WAC, Ambient Air Quality Standards and Emission Limits for Radionuclides.

II.X SCHEDULE EXTENSIONS

II.X.1 The Permittees shall notify Ecology in writing, as soon as possible, of any deviations or expected deviations, from the schedules of this Permit. The Permittees shall include with the notification all information supporting their claim that they have used best efforts to meet the required schedules. If Ecology determines that the Permittees have made best efforts to meet the schedules of this Permit, Ecology shall notify the Permittees in writing by certified mail, that the Permittees have been granted an extension. Such an extension shall not require a Permit Modification under Condition I.C.3. Should Ecology determine that the Permittees have not made best efforts to meet the schedules of this Permit, Ecology may take such action as deemed necessary.

Copies of all correspondence regarding schedule extensions shall be kept in the Operating Record.

II.X.2 Any schedule extension granted through the approved change control process identified in the FFACO shall be incorporated into this Permit. Such a revision shall not require a Permit Modification under Condition I.C.3.

PART III - UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS

CHAPTER 1

616 Nonradioactive Dangerous Waste Storage Facility

The 616 Nonradioactive Dangerous Waste Storage Facility (NRDWSF) is an active storage unit for dangerous wastes that are shipped to off-site commercial treatment or disposal facilities. This Chapter sets forth the operating Conditions for this TSD unit.

III.1.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittees shall comply with all the requirements set forth in Attachment 8, including all Class 1 and Class 3 Modifications specified below. Enforceable portions of the application are listed below; all subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

Part A, Form 3, Permit Application, Revision 7, March 1997

Section 2.1.3	The 616 Nonradioactive Dangerous Waste Storage Facility Description, from Class 1 Modification for quarter ending June 30, 1995, and March 31, 1998
Section 2.2	Topographic Maps
Section 2.5	Performance Standards, from Class 1 Modification for quarter ending June 30, 1998
Section 2.7.1	Spills and Discharges Into the Environment, from Class 1 Modification for quarter ending June 30, 1995
Section 2.8	Manifest System, from Class 1 Modification for quarter ending June 30, 1995
Chapter 3.0	Waste Characteristics, from Class 1 Modification for quarter ending June 30, 1995, and March 31, 1998
Chapter 4.0	Process Information, from Class 1 Modification for quarter ending June 30, 1995, and March 31, 1998
Chapter 6.0	Procedures to Prevent Hazards, from Class 3 Modification dated July 26, 1996, and from Class 1 Modification for quarter ending March 31, 1998
Chapter 7.0	Contingency Plan, dated May 1998, as amended in Class 2 Modification for Revision 5
Chapter 8.0	Personnel Training, from Class 1 Modification for quarter ending December 31, 1995
Chapter 11.0	Closure and Post-Closure Requirements, from Class 1 Modification for quarter ending June 30, 1995
Chapter 12.0	Reporting and Recordkeeping, from Class 1 Modification for quarters ending June 30, 1995, September 30, 1995, and March 31, 1998
Section 13.7	Toxic Substance Control Act of 1976
Section 13.8	Other Requirements

	Appendix 2A	Drawing H-13-000014, 616 NRDWSF Topographic Map, from Class 1 Modification for quarter ending June 30, 1995
	Appendix 4B	Drawing H-6-1553, Architectural Plan, Elevations and Sections, Rev. 4 and 2 ECNs from Class 1 Modification dated 7/98
	Appendix 4B	Drawing H-6-1556, Structural Plan and Sections, Rev. 4, and six ECNs from Class 1 Modification dated 7/98
	Appendix 7A	Building Emergency Plan, HNF-IP-0263-616, dated July 1, 1998, as amended in Class 2 Modification for Revision 5
	Appendix 8A	Training Plan, HNF-1276, Rev. 1, dated May 1998, as amended in Class 2 Modification for Revision 5
	Appendix 11B	Description of Procedures from Class 1 Modification for quarter ending June 30, 1995

III.1.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

III.1.B.a. Page 3-10, lines 11-17. Delete the first sentence of the paragraph and replace it with the following: "To be acceptable at 616 NRDWSF, samples of nonradioactive waste streams must be documented to have been sent to a laboratory for waste profiling when newly identified, or whenever the process used, or raw materials usage changes, and at least annually thereafter, to ensure that the waste designation assigned by the Solid Waste Engineering staff (Section 3.2), is accurate, and in compliance with land ban restrictions."

III.1.B.b. Page 3-16, lines 29 and 30. The following line is added to the end of the paragraph: "The laboratory verification results shall be obtained in accordance with WAC 173-303-110."

III.1.B.c. Page 2-16, lines 25 and 27. The address "7601 West Clearwater, Suite 102" shall be changed to "1315 West Fourth Avenue" and the telephone number "509-546-2990" shall be changed to "509-735-7581."

III.1.B.d. First Comment Package requested deletion

III.1.B.e. Table 7-1, Sections 3.1, 4.0 (first paragraph), 8.2, 8.3, 8.4, 11.0, and 12.0 are added as enforceable portions of Appendix 7A.

III.1.B.f. Portions of DOE/RL-94-02 that are not made enforceable by inclusion in the applicability matrix for that document, are not made enforceable by reference in this document.

III.1.B.g. Within thirty (30) days of issuance of this Permit, the Permittees will revise and submit to Ecology, Section 9.5 of Appendix 7A, to more accurately identify the quantity and capacity of spill control equipment available at the unit.

III.1.B.h. Appendix 7A, add "at 616 NRDWSF" to the titles of Sections 9.2, 9.4, and 9.5.

III.1.B.i. Before any waste is received at the unit, the Permittees will revise and submit to Ecology, Sections 9.2, 9.4, and 9.5 of Appendix 7A, to include emergency equipment needed to identify, measure, monitor, and protect against possible toxic fume hazards described in Section 6.1.5. Upon approval by Ecology, this information shall be incorporated into this Permit as a Class 1 Modification. If necessary, Ecology will amend the requirements through a Class 2 or 3 Modification to the Permit.

III.1.B.j. Appendix 7A, Figure 1, revise title to read "616 Nonradioactive Dangerous Waste Storage Facility Evacuation Routes."

III.1.B.k.	Appendix 7A, Section 8.2. In the event of a WAC 173-303 emergency, the Owner/Operator must notify Ecology, and appropriate local authorities, that the unit is in compliance with Sections 8.2 and 8.3 of Appendix 7A before operations are resumed in the affected areas.
III.1.B.l.	The Permittee must review and immediately amend the emergency response documentation, if necessary, whenever: (a) Applicable regulations, or the facility Permit, are revised, (b) The plan fails in an emergency, (c) The unit changes (in its design, construction, operation, maintenance, or other circumstances) in a way that materially increases the potential for fires, explosions, or releases of dangerous waste constituents, or in a way that changes the response necessary in an emergency, or (d) The list of emergency equipment changes.
III.1.B.m.	In first comment package asked to be deleted
III.1.B.n.	The approved Waste Analysis Plan (WAP) is compliant for receipt of on-site waste and off-site waste from USDOE owned and operated units (i.e., 712 Building and the Federal Building). The Permittee is not to receive other off-site waste at this unit until the WAP has been revised to include waste acceptance/verification criteria for the receipt of off-site waste.

CHAPTER 2

305-B Storage Facility

The 305-B Storage Facility (305-B) is an active storage unit for dangerous wastes and mixed wastes. These wastes are derived primarily from research and development activities and laboratory activities in the 300 Area. This Chapter sets forth the operating Conditions for this TSD unit.

III.2.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittees shall comply with all the requirements set forth in Attachment 18, including all Class 1 Modifications specified below, and the Amendments specified in Condition III.2.B. Enforceable portions of the application are listed below; all subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

Part A, Form 3, Permit Application, Revision 1 and from Class 1 Modification for quarter ending June 30, 1998

Section 2.1.2	The 305-B Storage Unit, from Class 1 Modification for quarter ending March 31, 1998
Section 2.2.1	General Requirement
Section 2.5	Performance Standard, from Class 1 Modification for quarter ending March 31, 1998
Section 2.6	Buffer Monitoring Zones, from Class 1 Modification for quarter ending March 31, 1998
Section 2.8	Manifest System, from Class 1 Modification for quarter ending March 31, 1998
Chapter 3.0	Waste Characteristics, from Class 1 Modification for quarter ending March 31, 1998
Chapter 4.0	Process Information, from Class 1 Modification for quarter ending December 31, 1998
Chapter 6.0	Procedures to Prevent Hazards, from Class 1 Modification for quarter ending December 31, 1998
Chapter 7.0	Contingency Plan, dated June 1 1998, as amended in Class 2 Modification for Revision 5
Appendix 7A	Building Emergency Plan for the 325 HWTUs, from Class 2 Modification dated June 1, 1998
Chapter 8.0	Personnel Training, from Class 1 Modification for quarter ending September 30, 1998
Chapter 11.0	Closure and Post-Closure Requirements, from Class 1 Modification for quarter ending June 30, 1997

Chapter 12.0	Reporting and Recordkeeping, from Class 1 Modification for quarter ending June 30, 1997
Section 13.8	Toxic Substances Control Act, from Class 1 Modification for quarter ending June 30, 1997
Section 13.9	Other Requirements, from Class 1 Modification for quarter ending June 30, 1997
Appendix 2A	Hanford Site and 300-Area Topographic Maps, Plates 2-2 Through 2-9

III.2.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

III.2.B.a. For all shipments of dangerous waste to or from this TSD unit, except for shipments which occur wholly within the 300 Area, the Permittees shall comply with Conditions II.P. and II.Q. of this Permit regarding dangerous waste shipment manifesting and transportation.

III.2.B.b. Page 3-5, line 41. The following text is added: "The 305-B personnel shall collect from the generating unit(s) the information pursuant to 40 CFR 268.7(a) regarding LDR wastes, the appropriate treatment standards, whether the waste meets the treatment standards, and the certification that the waste meets the treatment standards, if necessary, as well as any waste analysis data that supports the generator's determinations. If this information is not supplied by the generating unit, then the 305-B personnel shall be responsible for completion and transmittal of all subsequent information regarding LDR wastes, pursuant to 40 CFR 268.7(b). All waste streams must be re-characterized at least annually, or when generating unit and/or 305-B personnel have reason to believe the waste stream has changed, to determine compliance with LDR requirements in 40 CFR 268."

III.2.B.c. Page 3-9, line 16. The following is added to the end of this section: "Storage limits for all chemicals are listed in Table 4-1, page 4-18, and 4-19 (Uniform Building Code, Table numbers 9-A and 9-B). This table is incorporated into this Section by reference."

III.2.B.d. Page 3-10, line 27. The following paragraphs are inserted into this section:

"Prior to acceptance of wastes at 305-B, confirmation of designation may be required (Section 3.2.4). The wastes, which shall undergo confirmation of designation, are identified in Condition III.2.B.f. of this Permit and may be divided into two groups; those that easily yield a representative sample (Category I), and those that do not (Category II). The steps for each type are outlined below, along with a description of which wastes fall into each category:

Category I. If a waste which easily yields a representative sample is received, a representative sample will be taken from the waste containers selected. If more than one phase is present, each phase must be tested individually. The following field tests will be performed as appropriate for the waste stream:

- Reactivity - HAZCAT™ oxidizer, cyanide, and sulfide tests. These tests will not be performed on materials known to be organic peroxides, ethers, and/or water reactive compounds.
- Flashpoint/explosivity - by HAZCAT™ flammability procedure, explosive atmosphere meter[1], or a closed cup flashpoint measurement instrument[1].
- pH - by pH meter[1] or pH paper (SW-846-9041)[2]. This test will not be performed on non-aqueous materials.
- Halogenated organic compounds - by Chlor-D-Tect™ kits.
- Volatile organic compounds - by photo or flame ionization tester[1], by gas chromatography with or without mass spectrometry, or by melting point and/or boiling point determination.

[1] These instruments are field calibrated or checked for accuracy daily when in use.

[2] The pH paper must have a distinct color change every 0.5 pH unit and each batch of paper must be calibrated against certified pH buffers, or by comparison with a pH meter calibrated with certified pH buffers.

If the sample data observed meets the parameters specified in its documentation, confirmation of designation is complete and the waste may be accepted. If not, the waste is rejected and returned to the generating unit, for sampling and analysis. The waste will be required to be included with a resubmitted Chemical Disposal/Recycle Request (CD/RR) if generator process knowledge or other information is not available to properly characterize and identify the waste.

When mathematically possible, the Permittees shall perform confirmation on an equal number of Category I and Category II containers.

Category II. If a representative sample is not easily obtained (for example, discarded machinery or shop rags), or if the waste is a labpack or discarded laboratory reagent container, the following steps will be performed:

a. Visually verify the waste. Examine each selected container to ensure that it matches the data provided on the CD/RR form(s) provided to document the waste. Labpacks and combination packages must be removed from the outer container. If the waste matches the description specified in its documentation, confirmation of designation is complete and the waste may be accepted. If not, the waste is rejected and returned to the generating unit, and the generating unit revises and resubmits the documentation to reflect the actual contents. If necessary, the waste shall be re-designated utilizing the designation methods identified in WAC 173-303-070 through 173-303-100."

III.2.B.e. Page 3-10, line 32. The following is added to the end of this section: "Wastes must be analyzed using the Toxicity Characteristic Leaching Procedure (TCLP) in accordance with Appendix II of 40 CFR 261, as amended, in order to provide sufficient information for proper management, and for decisions regarding LDR, pursuant to 40 CFR 268."

III.2.B.f. Page 3-16, lines 24-28. Replace the existing language with: "At least five percent (5%) of the waste containers received at 305-B during a federal fiscal year (October 1 through September 30) will undergo confirmation of designation, pursuant to Sections 3.2.2 and 3.2.3 (Test Methods and Sampling Methods, respectively). The number of containers needed to meet the five percent (5%) requirement is five percent (5%) of the average of containers for the previous three (3) months. For example if two hundred (200) containers are received in January, one hundred eighty (180) in February, and two hundred twenty (220) in March, then ten (10) containers of received waste must undergo confirmation of designation in April. All generating units which ship more than twenty (20) containers through 305-B in a fiscal year will have at least one (1) container sampled and analyzed. Containers for which there is insufficient process knowledge, or analytical information to designate without sampling and analysis, may not be counted as part of the five percent (5%) requirement, unless there is additional confirmation of designation independent of the generator designation. The generating unit's staff shall not select the waste containers to be sampled and analyzed other than identifying containers for which insufficient information is available to designate.

Containers of the following are exempt from the confirmation calculation above: Laboratory reagents or other unused products, such as paint, lubricants, solvent, or cleaning products, whether received for redistribution, recycling, or as waste. To qualify for this exemption, such materials must be received at 305-B in their original containers."

III.2.B.g. The entire document contained in Appendix 7A (DOE/RL 90-01), excluding nuclear safety information, is considered applicable to RCRA requirements and Washington State Dangerous Waste Regulations, as applicable, in WAC 173-303.

CHAPTER 3

PUREX Storage Tunnels

The PUREX Storage Tunnels are mixed waste storage units consisting of two underground railroad tunnels: Tunnel Number 1, designated 218-E-14, and Tunnel Number 2, designated 218-E-15. This Chapter sets forth the operating Conditions for this TSD unit.

III.3.A COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittees shall comply with all requirements set forth in Attachment 28, including all Class 1 Modifications specified below, and the Amendments specified in Condition III.3.B, if any exist. Enforceable portions of the application are listed below; all subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

Part A, Form 3, Permit Application, Revision 5

Section 2.1	The PUREX Storage Tunnels Description
Section 2.2	Topographic Map, including Class 1 Modifications from quarter ending June 30, 1997
Chapter 3.0	Waste Analysis
Chapter 4.0	Process Information
Chapter 6.0	Procedures to Prevent Hazards
Chapter 7.0	Contingency Plan, dated May 1998, as amended in Class 2 Modification for Revision 5
Chapter 8.0	Personnel Training
Chapter 10.0	Waste Minimization
Chapter 11.0	Closure and Financial Assurance
Chapter 12.0	Reporting and Recordkeeping
Chapter 13.0	Other Federal and State Laws
Appendix 2A	Topographic Map
Appendix 3A	Waste Analysis Plan for PUREX Storage Tunnels
Appendix 4A	Engineering Drawings, including Class 1 Modifications from quarter ending December 31, 1998
Appendix 7A	Unit-Specific Contingency Plan for the 218-E-14 and 218-E-15 Storage Tunnels, dated May 1998, as amended in Class 2 Modification for Revision 5
Appendix 8A	Dangerous Waste Training Plan for the PUREX Facility

III.3.B AMENDMENTS TO THE APPROVED PERMIT APPLICATION (None Required)

CHAPTER 4

Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility

This Chapter sets forth the operating Conditions for the Liquid Effluent Retention Facility (LERF) and the Effluent Treatment Facility (ETF).

III.4.A COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittees shall comply with all requirements set forth in Attachment 34, including the Amendments specified in Condition III.4.B, if any exist. Enforceable portions of the application are listed below (All subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise):

LERF Part A, Form 3, Permit Application, Revision 6

ETF Part A, Form 3, Permit Application, Revision 3

Section 2.2	Topographic Map
Section 3.2	Waste Analysis Plan
Chapter 4.0	Process Information, dated May 1998, as amended in Class 2 Modification for Revision 5
Chapter 5.0	Ground Water Monitoring
Chapter 6.0	Procedures to Prevent Hazards, from Class 1 Modification for quarter ending September 31, 1998
Chapter 7.0	Contingency Plan, dated May 1998, as amended in Class 2 Modification for Revision 5
Chapter 8.0	Personnel Training
Chapter 11.0	Closure and Financial Assurance
Chapter 12.0	Reporting and Recordkeeping
Chapter 13.0	Other Federal and State Laws
Appendix 2A	Topographic Map
Appendix 3A	Waste Analysis Plan for the Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility, dated May 1998, as amended in Class 2 Modification for Revision 5
Appendix 4A	Detailed Drawings for the Liquid Effluent Retention Facility
Appendix 4B	Detailed Drawings for the 200 area Effluent Treatment Facility Container Storage Area and Tank Systems
Appendix 5A	Liquid Effluent Retention Facility Final Ground Water Monitoring Plan, PNNL-11620, See Amendment III.4.B.c.
Appendix 7A	Building Emergency Plan for the Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility, dated May 1998, as amended in Class 2 Modification for Revision 5

	Appendix 8A	200 Area Liquid Waste Processing Facilities Administrative Policies, Dangerous Waste Training Plan, dated May 1998, as amended in Class 2 Modification for Revision 5
III.4.B.	AMENDMENTS TO THE APPROVED PERMIT APPLICATION	
III.4.B.a.	Section 4.4.6; add the following paragraph, "All tank systems holding dangerous waste are marked with labels or signs to identify the waste contained in the tanks. The labels or signs are legible at a distance of at least fifty (50) feet and bear a legend that identifies the waste in a manner which adequately warns employees, emergency response personnel, and the public, of the major risk(s) associated with the waste being stored or treated in the tank system(s)."	
III.4.B.b.	Appendix 3A, Waste Analysis Plan for the Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility.	
III.4.B.b.1.	The Permittees shall comply with all the requirements, subsections, figures, tables, and appendices, included in the "Waste Analysis Plan for Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility," except that the "Wastewater Profile Sheet Form" is included as an example only. The actual Wastewater Profile Sheet format may vary, but will contain the same substantive information as the example form.	
III.4.B.b.2.	Section 6.1 Dry Powder Waste	
	The following terms used in this Section, including powder, dry powder, waste powder, and dry waste powder, are equivalent to the term "dry powder waste" as defined in lines 20 through 27 on page 6-1.	
III.4.B.b.3.	Section 6.3 Other Waste Generated at the 200 Area Effluent Treatment Facility	
	Insert the phrase "according to Washington State Regulatory Requirements" after the word "designated" in line 44 on page 6-4.	
III.4.B.c.	Liquid Effluent Retention Facility Final Ground Water Monitoring Plan, PNNL-11620, is an integral Part of this Permit and is to be added as Appendix 5A to the 200 Area Liquid Waste Complex Permit Application.	
III.4.B.d.	Table 7-1, Sections 3.1, 4.0 (first paragraph), 8.2, 8.3, 8.4, 11.0, and 12.0 are added as enforceable portions of Appendix 7A.	
III.4.B.d.1.	Portions of DOE/RL-94-02 that are not made enforceable by inclusion in the applicability matrix for that document, are not made enforceable by reference in this document.	

CHAPTER 5

242-A Evaporator

The 242-A Evaporator is a mixed waste treatment and storage unit consisting of a conventional forced-circulation, vacuum evaporation system to concentrate mixed-waste solutions. This Chapter sets forth the operating Conditions for this TSD unit.

III.5.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittees shall comply with all requirements set forth in Attachment 35, including the Amendments specified in Condition III.5.B, if any exist. Enforceable portions of the application are listed below; all subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise):

Part A, Form 3, Permit Application, Revision 7

Section 2.2	Topographic Map, (non-enforceable sections in Chapter 2 were modified in Class 1 Modification) quarter ending March 31, 1998
Section 3.2	Waste Analysis
Chapter 4.0	Process Information
Chapter 6.0	Procedures to Prevent Hazards, dated May 1998, as amended in Class 2 Modification for Revision 5
Chapter 7.0	Contingency Plan, dated May 1998, as amended in Class 2 Modification for Revision 5
Chapter 8.0	Personnel Training
Chapter 11.0	Closure and Financial Assurance, from Class 1 Modification for quarter ending June 30, 1998
Chapter 12.0	Reporting and Recordkeeping
Chapter 13.0	Other Federal and State Laws
Appendix 2A	Topographic Map
Appendix 3A	Waste Analysis Plan for 242-A Evaporator, from Class 1 Modification from quarter ending March 31, 1998
Appendix 4A	Engineering Drawings
Appendix 4B	The 242-A Evaporator/Crystallizer Tank System Integrity Assessment Report
Appendix 7A	Building Emergency Plan for 242-A Evaporator, dated May 1998, as amended in Class 2 Modification for Revision 5
Appendix 8A	200 Area Liquid Waste Processing Facilities Administrative Policies, Dangerous Waste Training Plan from Class 1 Modification for quarter ending June 30, 1998

III.5.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

III.5.B.a. Appendix 3A, Waste Analysis Plan (WAP) for 242-A Evaporator

III.5.B.a.1. Section 1.1 Purpose

The sentence beginning on line 23 of page 1-1 is modified to read as follows: "Sampling and analysis identified in the DQO analysis related to meeting RCRA requirements are included as an integral part of this WAP."

III.5.B.a.2. Section 5.0, 242-A Evaporator Acceptance Criteria

Table 2, Page 5-4, Line 1, Change title to, "Candidate Feed Tank Limits for Vessel Vent Organic Discharge"

III.5.B.a.3. Section 5.0, 242-A Evaporator Acceptance Criteria

Table 3, Page 5-5, Add footnote "f" to title of the table; and add footnote "f." This table is used to ensure process condensate generated from candidate feed tank treatment is within LERF liner compatibility limits"

III.5.B.a.4. Section 6.1.2. Candidate Feed Tank Sampling QA/QC

Delete lines 5 through 6 on page 6-2 ("Trip blanks are analyzed for those constituents detected in the field blanks.") and replace with the following: "Trip blanks are analyzed as independent samples for volatile organics analysis"

III.5.B.a.5. Section 6.1.2. Candidate Feed Tank Sampling QA/QC

Delete the word "discrete" from line 18 on page 6-2 and insert the word "unique"

III.5.B.a.6. Section 6.1.3. Process Condensate Sample Collection

Append to lines 32 through 33 on page 6-2 ["Samples of process condensate are collected in a manner consistent with SW-846 procedures (EPA 1986)."] the following text: "...as documented in sampling procedures which are maintained and implemented by unit personnel"

III.5.B.a.7. Table 5. Analytes for Candidate Feed Tanks

On page 6-4, delete the word "method" and insert the word "technique" in the heading of column 2

III.5.B.a.8. Section 7.3 Laboratory QA/QC

In line 40, delete "matrix spike – " and on line 43, replace "accuracy" with "precision" and add a new sentence at the end of the paragraph, "Accuracy for DSC is evaluated by using the laboratory control standard"

III.5.B.a.9. Section 7.3 Laboratory QA/QC

Add a new paragraph, "The QA/QC program for sampling and analysis related to this unit must, at a minimum, comply with the applicable Hanford Site standard requirements and the regulatory requirements. All analytical data shall be defensible and shall be traceable to specific, related quality control samples and calibrations"

III.5.B.a.10. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes

Delete the word "Objectives" from the title of the table and insert the word "Requirements"

III.5.B.a.11. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes

In column 4, delete the words "matrix spike," so the heading reads as follows: "Precision (RPD between duplicates), %"

III.5.B.a.12. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes. Delete Footnote 1 and replace with "Reserved"

III.5.B.a.13. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes. In line 6, under "Accuracy" column, add "4" to table entry "N/A" and add to the end of footnote 4, "Accuracy for DSC is evaluated by using the laboratory control standard"

III.5.B.a.14. Table 7-1, Sections 3.1, 4.0 (first paragraph), 8.2, 8.3, 8.4, 11.0, and 12.0 are added as enforceable portions of Appendix 7A

III.5.B.a.15. Portions of DOE/RL-94-02 that are not made enforceable by inclusion in the applicability matrix for that document, are not made enforceable by reference in this document

CHAPTER 6

325 Hazardous Waste Treatment Units

The 325 Hazardous Waste Treatment Units (HWTUs) consist of three (3) units within the 325 Building, i.e., the Shielded Analytical Laboratory, the Hazardous Waste Treatment Unit, and the Collection/Loadout Station Tank. The units store and treat a variety of dangerous wastes related to research and operations. This chapter sets forth the operating Conditions for this TSD unit.

III.6.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittees shall comply with all requirements set forth in Attachment 36, including the Amendments specified in Condition III.6.B. Enforceable portions of the application are listed below. All subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

Part A, Form 3, Permit Application, Revision 4, June 1997

Chapter 2.2	Topographic Map from Class 1 Modification for quarter ending June 30, 1998
Chapter 3.0	Waste Characteristics
Chapter 4.0	Process Information from Class 1 Modification for quarter ending December 31, 1998
Chapter 6.0	Procedures to Prevent Hazards from Class 1 Modification for quarter ending December 31, 1998
Chapter 7.0	Contingency Plan, dated June 1, 1998, as amended in Class 2 Modification for Revision 5
Chapter 8.0	Personnel Training
Chapter 11.0	Closure and Financial Assurance
Chapter 12.0	Reporting and Recordkeeping
Chapter 13.0	Other Relevant Laws
Appendix 3A	325 HWTUs Waste Analysis Plan from Class 1 Modification for quarter ending December 31, 1998
Appendix 4A	Engineering Drawings
Appendix 7A	Building Emergency Plan for the 325 HWTUs, dated June 1, 1998, as amended in Class 2 Modification for Revision 5
Appendix 8A	Training from Class 1 Modification for quarter ending December 31, 1998

III.6.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

III.6.B.a. Only treatment specifically identified in the enforceable portions of the application and these Permit Conditions may be performed at this TSD unit.

III.6.B.b. Twenty (20) months after inclusion in the Permit, this Chapter shall be modified to reflect changes to waste streams shipped into, and out from, this unit, TSD unit operations, and the addition of a new storage tank.

III.6.B.c. For all shipments of dangerous waste to or from the 325 HWTUs, the Permittees shall comply with the applicable information in Conditions II.Q.1.h. and II.Q.2. of the Permit. For clarification, all dangerous waste must be transported in accordance with the unit specific provisions as outlined in the PNNL Operating Procedure for the 325 Building, in effect at the date of the transfer. With exception to, and in addition to, the packaging and transporting operations, shall be as follows:

The acceptance of all dangerous waste received at the 325 TSD Units will be dependent upon their packaging. Liquid waste containers accepted from other buildings to the 325 HWTUs shall have secondary containment with absorbent materials packed around the contents .

III.6.B.d. The Permittee must conduct integrity assessments over the life of the two (2) tank systems in this TSD unit, to ensure that the tanks retain structural integrity per WAC 173-303-640. Records must be maintained in the Operating Record for this TSD unit. Within thirty (30) days of completion of each assessment, data relating to each tank system shall be made available, upon request, to Ecology for review.

III.6.B.e. Within three (3) months of final installation of the new tank, the Permittee shall submit to Ecology a written integrity assessment, which has been reviewed and certified by an independent, qualified, registered professional engineer, in accordance with WAC 173-303-810 (13)(a).

III.6.B.f. The TSD unit shall comply with all applicable Subpart AA and BB requirements of the Air Emission Standards.

III.6.B.g. In response to the request in Chapter 11.0, Section 11.7, of Attachment 37, the Permittees are granted two (2) years to close the TSD unit (2-28-2000). This time period is necessitated by the high levels of radioactivity in the materials that are present, particularly in the six (6) interconnected hot cells. Removal of waste inventory from the TSD unit is an activity of closure.

III.6.B.h. All process knowledge and analytical data that are used for waste characterization, LDR determination, and/or treatment activities at this TSD unit shall be documented and placed in the Operating Record.

III.6.B.i. Shipments of waste shall not be accepted from any on-site generator without information required by the 325 HWTUs WAP, accompanying the first shipment of any waste stream. The TSD unit staff shall obtain, from the on-site generator, the information necessary to determine the waste code, treatability group (i.e., wastewater versus non-wastewater), subcategory, and identification of underlying hazardous constituents for certain characteristic waste. A member of the TSD unit staff may sign the LDR certification as a representative of the generator.

III.6.B.j. Shipments of waste shall not be accepted from any off-site generator without LDR certification, if applicable, accompanying each shipment. For waste received from off-site generators, the TSD unit shall receive the information pursuant to 40 CFR 268 regarding LDR wastes. The generator must sign the LDR certification.

III.6.B.k. The QA/QC control program for sampling and analysis related to this TSD unit must, at a minimum, comply with the applicable Hanford Site standard requirements and regulatory requirements. All analytical data shall be defensible and shall be traceable to specific, related quality control samples and calibrations.

III.6.B.l.	By April 28, 1998, the Permittees shall submit the following for review and approval by Ecology: for each parameter, the respective accuracy, precision, and quantitation limit (or minimum detectable activity) necessary to meet the regulatory or decision limit. These data quality requirements shall be added to the WAP and become enforceable Conditions of the Permit. For determining the toxicity characteristics, SW-846 Method 1311should be followed wherever possible. The Permittee may use the total metals test and assumption of complete extractability as described in Method 1311. A reduced sample size may also be utilized for As Low As Reasonably Achievable (ALARA) purposes as recommended by the "*Joint NRC/EPA Guidance on Testing Requirements of Mixed Radioactive and Hazardous Waste*" (62 FR 62079).
III.6.B.m.	For a given parameter, analytical methods are selected and may be modified as long as the applicable precision, accuracy, and quantitation limit (or minimum detectable activity) necessary to meet the regulatory or decision limit can be met or improved. (Note: the Permittee submission described in Condition III.6.B.l. will define these data quality requirements for this TSD unit.)
III.6.B.n.	Chapter 2.0, Page 2-5, line 41. Change Figure 2-3b, to read "Figure 2.3b."
III.6.B.o.	Appendix 7A, Sections 3.2, 4.0, 5.0, and 6.0 are added as enforceable Sections.
III.6.B.p	First Comment Package requested this Condition be deleted
III.6.B.q.	Chapter 6, at the end of the paragraph, add "by Ecology and shall follow WAC 173-303-360, where applicable"
III.6.B.r.	Portions of DOE/RL-94-02 that are not made enforceable by inclusion in the applicability matrix for that document, are not made enforceable by reference in this document.

PART IV - CORRECTIVE ACTIONS FOR PAST PRACTICES

The HSWA Permit is issued by the EPA in conjunction with this Permit. Upon delegation of the Corrective Action requirements of the HSWA by the EPA to Ecology, the Permit shall be modified to incorporate the specific requirements of the HSWA Permit into this Permit. This Modification shall be considered a Class 3 Modification in accordance with Condition I.C.3. Until this Modification is complete, compliance with the terms of the referenced provisions, shall be deemed as compliance with WAC 173-303-646.

PART V - UNIT-SPECIFIC CONDITIONS FOR UNITS UNDERGOING CLOSURE

CHAPTER 1

183-H Solar Evaporation Basins
(Superseded by Part VI, Chapter 2)

The 183-H Solar Evaporation Basins (Basins) TSD unit was operated as an evaporation treatment unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit. The 183-H Solar Evaporation Basins Closure Plan has been completed and clean closure could not be achieved. The Modified Closure Plan presented in Part VI, Chapter 2 now supersedes this Chapter.

CHAPTER 2

300 Area Solvent Evaporator
(Clean Closed, July 31, 1995)

The 300 Area Solvent Evaporator (300 ASE) unit was operated as an evaporation treatment unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.

This unit has been Clean Closed on July 31, 1995, in accordance with the approved Closure Plan contained in Attachment 16 of this Permit.

CHAPTER 3

2727-S Nonradioactive Dangerous Waste Storage Facility (Clean Closed, July 31, 1995)

The 2727-S NRDWSF unit was operated as a storage unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.

This unit has been Clean Closed on July 31, 1995, in accordance with the approved Closure Plan contained in Attachment 17 of this Permit.

CHAPTER 4

Simulated High Level Waste Slurry Treatment and Storage Unit (Clean Closed, October 23, 1995)

The Simulated High Level Waste Slurry (SHLWS) unit was operated as a TSD unit for simulated slurry as a test operation in connection with the grout project. This Chapter sets forth the closure requirements for this TSD unit.

This unit has been Clean Closed on October 23, 1995, in accordance with the approved Closure Plan contained in Attachment 19 of this Permit.

CHAPTER 5

218-E-8 Borrow Pit Demolition Site (Clean Closed, November 28, 1995)

The 218-E-8 Borrow Pit Demolition Site (218 BPDS) unit was operated as an open burning/open detonation unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.

This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan contained in Attachment 20 of this Permit.

CHAPTER 6

200 West Area Ash Pit Demolition Site (Clean Closed, November 28, 1995)

The 200 West Area Ash Pit Demolition Site (200 APDS) unit was operated as an open burning/open detonation unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.

This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan contained in Attachment 21 of this Permit.

CHAPTER 7

2101-M Pond
(Clean Closed, November 28, 1995)

The 2101-M Pond unit was operated as a disposal unit for potentially dangerous waste. This chapter sets forth closure requirements for this TSD unit.

This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan contained in Attachment 22 of this Permit.

CHAPTER 8

216-B-3 Expansion Ponds
(Clean Closed, July 31, 1995)

The 216-B-3 Expansion Ponds unit was operated as a treatment and disposal unit for dangerous waste. This chapter sets forth the closure requirements for this TSD unit.

This unit has been Clean Closed on July 31, 1995, in accordance with the approved Closure Plan contained in Attachment 23 of this Permit.

CHAPTER 9

Hanford Patrol Academy Demolition Site (Clean Closed, November 28, 1995)

The Hanford Patrol Academy Demolition Site (HPADS) unit was operated as an open burning/open detonation unit for dangerous waste. This Chapter sets forth the closure requirements for this TSD unit.

This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan contained in Attachment 24 of this Permit.

CHAPTER 10

105-DR Large Sodium Fire Facility
(Partial Closure Plan Completed, October 1, 1996)

The Large Sodium Fire Facility (LSFF) was a research laboratory used to conduct experiments for studying the behavior of alkali metals. This facility was also used for the treatment of alkali metal dangerous wastes.

This unit completed the closure plan on October 1, 1996, in accordance with the approved Closure Plan contained in Attachment 25 of this Permit

CHAPTER 11

304 Concretion Facility
(Clean Closed, January 21, 1996)

The 304 Concretion Facility (304 Facility) was used for the treatment of dangerous wastes produced during the fuel fabrication process. These wastes consist of beryllium/Zircalloy-2 chips and Zircalloy-2 chips and fines.

This Unit has been Clean Closed on January 21, 1996, in accordance with the approved Closure Plan contained in Attachment 26 of this Permit.

CHAPTER 12

4843 Alkali Metal Storage Facility Closure Plan (Clean Closed, April 14, 1997)

The 4843 Alkali Metal Storage Facility (4843 AMSF) is an inactive storage facility which is currently undergoing permanent closure activities. This TSD unit was operated as a storage unit for dangerous waste and alkali metals.

This unit has been clean closed on April 14, 1997, in accordance with the approved closure plan contained in attachment 29 of this Permit.

CHAPTER 13

3718-F Alkali Metal Treatment and Storage Facility Closure Plan (Clean Closed, August 4, 1998)

This unit has been Clean Closed on August 4, 1998, in accordance with the approved Closure Plan contained in Attachment 30 of this Permit. The 3718-F Alkali Metal Treatment and Storage Facility was operated to treat and store alkali metal waste from the Fast Flux Test Facility, and from various laboratories that used alkali metals for experiments. Contaminated equipment was treated using water, methanol, isopropyl alcohol, or 2-butoxy ethanol. Bulk waste was treated by burning to eliminate the ignitability and reactive characteristics. After the burn treatment, the waste was neutralized with acid to a pH between 2 and 12.5.

V.13.A COMPLIANCE WITH THE APPROVED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in Attachment 30, including the Amendments specified in Condition V.13.B. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

The operation of this facility resulted in the release of material, which may classify as dangerous waste and/or dangerous constituents, to the soil surrounding the building and concrete pad. A closure plan must address the full extent of operation and releases to the environment. Therefore, Ecology requires the owner/operator to conduct soil sampling to determine the extent of the releases. The 3718-F Alkali Metal Treatment and Storage Facility cannot be released from interim status until it can be demonstrated that the unit has been closed in accordance with closure requirements of WAC 173-303, or corrective action has been completed.

If pre-existing contamination remains at the unit in concentrations above appropriate MTCA cleanup levels, the unit is subject to additional remediation under RCRA corrective action, MTCA, or CERCLA, as appropriate.

Part A, Form 3, Permit Application, Revision 4, October 1996

Section 1.2	Closure Strategy
Chapter 2.0	Facility Description and Location Information
Chapter 5.0	Ground Water Monitoring
Chapter 6.0	Closure Performance Standards
Chapter 7.0	Closure Activities
Chapter 8.0	Post-Closure Plan

V.13.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

V.13.B.a. If closure activities have not begun and/or will not be conducted in accordance with the Plan, including these unit-specific Conditions to the Plan, a written notification shall be submitted to Ecology within thirty (30) days after the Plan is approved.

V.13.B.b. Ecology shall be provided, for review and approval, a soil sampling and analysis plan at least thirty (30) days prior to initiating actual sampling. Such a plan shall include a schedule for conducting sampling events. The analytical results of the sampling event will be used to determine if corrective action will be required to close the 3718-F Alkali Metal Treatment and Storage Facility.

V.13.B.c. Ecology shall be provided a diagram of the 3718-F Alkali Metal Treatment and Storage Facility unit boundary to be closed, addressing the maximum extent of operation. The diagram should incorporate the fenced area surrounding the building, indicating which areas intentionally, or unintentionally, received waste. This diagram is to be submitted with the SAP required by Condition V.13.B.b.

V.13.B.d. The soil samples shall be analyzed for all dangerous constituents documented to have been potentially spilled or released at the 3718-F Alkali Metal Treatment and Storage Facility during its operating life. These analyses shall be performed in accordance with WAC 173-303-110, including the QA/QC requirements delineated in SW-846.

V.13.B.e. The results of all sampling shall be submitted to Ecology. These submittals shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary with conclusions.

V.13.B.f. The Permittees and the independent, registered, professional engineer shall prepare and submit the certification of closure to Ecology by registered mail within sixty (60) days of closure.

V.13.B.g. The Permittees shall continue to address the 3718-F Alkali Metal Treatment and Storage Facility as a dangerous waste management unit until receipt of Ecology's written notification that the closure certification is accepted as clean closed.

V.13.B.h. The Permittees shall complete the 3718-F Alkali Metal Treatment and Storage Facility closure activities within one hundred eighty (180) days after the effective date of this Permit. This schedule may be extended at Ecology's discretion based on the results of sampling conducted at the unit.

V.13.B.i. Any solid waste remaining at the unit or generated during sampling and/or decontamination activities shall be designated and managed accordingly. Ecology shall be informed in writing of the final disposition of the waste.

V.13.B.j. A written notification shall be submitted to Ecology regarding the final disposition of equipment associated with, or subject to, decontamination, designation, removal, disposal, recycling or reuse at the 3718-F Alkali Metal Treatment and Storage Facility.

V.13.B.k. The Permittees shall notify Ecology, in writing, if at any time it is determined the clean closure levels specified in this Plan are exceeded.

V.13.B.l. Ecology will consider removal and decontamination complete when the concentrations of dangerous waste, dangerous waste constituents, and dangerous waste residues, which originated from the 3718-F Alkali Metal Treatment and Storage Facility, throughout the areas affected by releases from this unit, do not exceed numeric cleanup levels for soils, ground water, surface water, and air, determined by using residential exposure assumptions according to the MTCA 173-340, Method A or B.

V.13.B.m. A Post-Closure Permit will be required if dangerous wastes constituents, residues, or decomposition products, are left in place at concentrations above the numeric cleanup levels determined by using residential exposure assumptions under MTCA Method A or B.

V.13.C CHANGES TO TEXT OF REVISION 2 OF THE CLOSURE PLAN (CHAPTER 13)

V.13.C.a. Page 6-2, line 8. Disregard first bullet. The bullet inaccurately states radioactive waste was not managed at the unit. The 3718-F Alkali Metal Treatment and Storage Facility did manage radioactive sodium according to *DOE-RL 1992a, 3718-F Alkali Metal Treatment and Storage Facility Closure Plan, DOE-RL-91-35, Rev. 1,* U.S. Department of Energy, Richland Field Office, Richland, Washington and the *300-FF-2 Operable Unit Technical Baseline Report, BHI-00012, Rev. 00, Bechtel Hanford, Inc., Richland, Washington.*

CHAPTER 14

303-K Storage Facility

The 303-K Storage Facility (303-K) was used primarily for storage, and some treatment of dangerous wastes produced during the fuel fabrication process. These wastes consist of beryllium/zircalloy-2 chips which were concreted at the 304 Concretion Facility, and other process wastes.

V.14.A COMPLIANCE WITH THE APPROVED CLOSURE PLAN

The Permittees shall comply with all the requirements set forth in Attachment 32, including the Amendments specified in Condition V.14.B. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

Part A, Form 3, Permit Application, Revision 5, October 1996

Section 2.1	Description of the 303-K Storage Facility
Section 2.2	Security
Chapter 4.0	Waste Characteristics
Chapter 6.0	Closure Strategy and Performance Standards
Chapter 7.0	Closure Activities
Chapter 8.0	Post-Closure
Appendix B	Random Sampling Locations
Appendix E	Personnel Training
Appendix F	Quality Assurance Project Plan for Sampling and Analysis for the 304 Concretion Facility Closure Activities

V.14.B AMENDMENTS TO THE APPROVED CLOSURE PLAN

V.14.B.a. If closure activities have not begun and/or will not be conducted in accordance with the Plan, including these unit-specific Conditions to the Plan, a written notification shall be submitted to Ecology within thirty (30) days after the Plan is approved.

V.14.B.b. The results of all sampling required by the Plan shall be provided to Ecology. This submittal shall include raw analytical data, a summary of analytical results, a data validation package, and a narrative summary of conclusions.

V.14.B.c. Ecology shall be provided, for review and approval, a SAP and date of sampling for any sampling event not addressed in the Plan, which provides data used to support the 303-K cleanup activities, at least thirty (30) days prior to initiating actual sampling activities. The results of this sampling shall be submitted to Ecology. These submittals shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary of conclusions.

V.14.B.d. The Permittees shall notify Ecology, in writing, if action levels cited in Section 6.1 of the Plan are exceeded. The notification shall include a request for Ecology's approval of alternative action levels, or identify interim measures to be taken in the 303-K until closure activities are performed in conjunction with the 300-FF-3 Operable Unit. The interim measures must be approved by Ecology.

V.14.B.e. The Permittees' and the independent, registered, professional engineer's certifications of closure shall be prepared and submitted to Ecology by registered mail within sixty (60) days of closure as described in Section 7.8 of the Plan. The Permittees shall continue to address the 303-K as a dangerous waste management unit until receipt of Ecology's written notification that the 303-K is accepted as clean closed.

V.14.B.f. Due to lack of federal funding in 1998, the allowed time for closure of 303-K is hereby extended in accordance with WAC 173-303-610(4)(b)(i) and 173-303-815(3). The Permittees shall submit a certification of closure for 303-K no later than September 30, 2001. In addition, the Permittees shall submit to Ecology at least two (2) reports of progress toward completion of closure (i.e., budgeting for building demolition, obtaining sufficient funding, scheduling the physical work). The first report shall be submitted no later than September 30, 1999, and the second shall be submitted no later than September 30, 2000.

V.14.B.g. Compliance with the approved Sampling and Analysis Plan.

The Permittees shall comply with all the requirements set forth in the "303-K Storage Facility Sampling and Analysis Plan" (as found in Attachment 38) and the "Errata Sheet for the 303-K Storage Facility Sampling and Analysis Plan" (as found in Attachment 39) including the Amendments specified below. All subsections, figures, and tables included in the Sampling and Analysis Plan also are enforceable, unless otherwise stated.

V. 14.B.g.1. Section 5.1 Cleanup Performance Standards for Soils.

Insert the following after line 25 on page 5: "Using the Ecology publication, Model Toxics Control Act (MTCA) Cleanup Levels and Risk Calculations (CLARC II) Update, February 1996 (Publication #94-145, as updated January 1996), cleanup levels shall be identified for all constituents of concern. In addition, when a MTCA Method B value does not exist for a constituent, the cleanup level shall be obtained from the appropriate Method A table in WAC 173-340."

Delete Table 1 on page 6.

V.14.B.g.2. Section 7.4 Support for Ecology during Sampling.

Delete lines 29 through 32 on page 16 ("Split samples of concrete and soil may be collected, if requested, for Ecology. If split samples for Ecology are collected as part of this sampling effort, then the...") and replace with the following: "Split samples of concrete and soil will be collected for Ecology from each sampling location. The..."

V.14.B.g.3. Field analytical quality control will include analytical duplicate(s) and verification of the method detection limit. Each field screening analytical duplicate sample will be collected from the same volume of sample material as the original field screening analytical sample. The frequency for these duplicates will be one (1) per twenty (20) samples, or one (1) per day of analysis, whichever is more stringent. The procedure used for the verification of the method detection limit is subject to approval by Ecology.

V.14.B.g.4. The laboratory quality control will be performed as described in the respective method, but will include the following: The frequency for analytical quality control will be one (1) in twenty (20) samples, or one (1) per analytical batch, whichever is more stringent, for duplicate and spike (or matrix spike) samples. Samples from this project must be chosen for the duplicate and spike (or matrix spike) samples. At least one (1) method blank, and one (1) quality control check sample, will be performed for each analytical batch.

V.14.B.g.5. Samples shall be placed upon ice immediately, or refrigerated to 4± 2 degrees Celsius after sampling, and held at that temperature prior to and during shipping to the analytical laboratory.

V.14.B.g.6. Loss of any sample due to any cause may require resampling and/or reanalysis, at the discretion of Ecology.

V.14.B.g.7 The results of all analyses required by the SAP as revised by these Conditions shall be provided to Ecology as stated in V.14.B.c. In addition to the items listed, these submittals shall include calibration and quality control data. A data evaluation report shall be submitted to Ecology comparing the analytical results to the cleanup levels for the 303-K, derived as described in Condition V.14.B.g.1. For data to be useable for this comparison, the method quantification limit for the constituent must be equal to, or less than, the cleanup level, or the method detection limit must be at least ten (10) times below the cleanup level, and the data package must be complete.

V.14.B.h. If any analytical result, except for arsenic and beryllium, for any sample location specified in the SAP exceeds the MTCA Method B cleanup level, then characterization of the lateral and vertical extent of the contamination shall be required and Ecology shall pursue corrective action for this TSD unit. If arsenic or beryllium exceed the established Hanford Sitewide Background values, then characterization of the lateral and vertical extent of the contamination shall be required and Ecology shall pursue corrective action for this TSD unit.

CHAPTER 15

100 D Ponds

The 100 D Ponds is an inactive TSD unit that is currently undergoing permanent closure activities. This TSD unit was operated as a liquid effluent disposal site for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.

V.15.A. COMPLIANCE WITH APPROVED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in the 100 D Ponds Closure Plan (Plan), found in Attachment 43, including the Amendments specified in Condition V.15.B. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

Part A, Form 3, Permit Application, Revision 4, June 30, 1994

Section 2.3	Security Information
Section 5.0	Ground Water Monitoring
Section 6.0	Closure Strategy and Performance Standards
Section 7.0	Closure Activities

V.15.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

V.15.B.a. (Reserved)

CHAPTER 16

1325-N Liquid Waste Disposal Facility

The 1325-N Liquid Waste Disposal Facility is an inactive TSD unit that is currently undergoing modified closure activities. This TSD unit was operated as a liquid waste disposal facility for dangerous wastes. This Chapter sets forth the modified closure requirements for this TSD unit.

V.16.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in the 1325-N Closure Plan found in Attachment 44 (DOE/RL-96-39, Rev. 0, Appendix A), including the Amendments specified in Condition V.16.B. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

Part A, Form 3, Permit Application, Revision 7, February 25, 1997

Section A1.0	Introduction
Section A2.1	General Description of Unit
Section A3.0	Ground Water Monitoring
Section A4.0	Closure
Section A5.0	Post-closure Plan

V.16.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN

V.16.B.a. (Reserved)

CHAPTER 17

1301-N Liquid Waste Disposal Facility

The 1301-N Liquid Waste Disposal Facility is an inactive TSD unit that is currently undergoing modified closure activities. This TSD unit was operated as a liquid waste disposal facility for dangerous wastes. This Chapter sets forth the modified closure requirements for this TSD unit.

V.17.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in the 1301-N Closure Plan found in Attachment 44 (DOE/RL-96-39, Rev. 0, Appendix A), including the Amendments specified in Condition V.17.A. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

Part A, Form 3, Permit Application, Revision 7, February 29, 1997

Section A1.0	Introduction
Section A2.1	General Description of Unit
Section A3.0	Ground Water Monitoring
Section A4.0	Closure
Section A5.0	Post-Closure Plan

V.17.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN

V.17.B.a. (Reserved)

CHAPTER 18

1324-N Surface Impoundment

The 1324-N Surface Impoundment is an inactive TSD unit that is currently undergoing modified closure activities. This TSD unit was operated as a percolation unit for dangerous wastes. This Chapter sets forth the modified closure requirements for this TSD unit.

V.18.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in the 1324-N Closure Plan found in Attachment 45 (DOE/RL-96-39, Rev. 0, Appendix B), including the Amendments specified in Condition V.18.B. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

Part A, Form 3, Permit Application, Revision 3, June 30, 1994

Section B1.0	Introduction
Section B2.1	General Description of Unit
Section B3.0	Ground Water Monitoring
Section B4.0	Closure
Section B5.0	Post-Closure Plan

V.18.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN

V.18.B.a. (Reserved)

CHAPTER 19

1324-NA Percolation Pond

The 1324-NA Percolation Pond is an inactive TSD unit that is currently undergoing modified closure activities. This TSD unit was operated as a surface impoundment unit for dangerous wastes. This Chapter sets forth the modified closure requirements for this TSD unit.

V.19.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in the 1324-NA Closure Plan found in Attachment 45 (DOE/RL-96-39, Rev. 0, Appendix B), including the Amendments specified in Condition V.19.B. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

Part A, Form 3, Permit Application, Revision 3, June 30, 1994

Section B1.0	Introduction
Section B2.1	General Description of Unit
Section B3.0	Ground Water Monitoring
Section B4.0	Closure
Section B5.0	Post-Closure Plan

V.19.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN

V.19.B.a. (Reserved)

PART VI UNIT-SPECIFIC CONDITIONS FOR UNITS IN POST-CLOSURE

CHAPTER 1

300 Area Process Trenches

The 300 Area Process Trenches were operated to receive effluent discharges of dangerous mixed waste from fuel fabrication laboratories in the 300 Area. This chapter sets forth the modified closure requirements.

VI.1.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in Attachment 31, including all Class 1 Modifications through quarter ending July 1997, and Amendments specified in Condition VI.1.B. Enforceable portions of the plan are listed below. All subsections, figures, and tables included in these portions are also enforceable, unless otherwise stated. The Permittees shall also comply with all the requirements in the 300-FF-1 and 300-FF-5 Record of Decision and Addendum and the Ground Water Monitoring Plan (WHC-SD-EN-AP-185, Rev. 0A).

Part A, Form 3, Permit Application, Revision 4, May 1995

Section ADD-1	Addendum, Introduction
Section 1.3.	Content of the Modified Closure/Post-Closure Plan
Chapter 4.0	Waste Characteristics Summary of non-radionuclide data. Data is located in the *Expedited Response Action Assessment for the 316-5 Process Trenches* (DOE/RL-92-32, Rev. 0)
Section 6.2.1.	Minimize Need for Post-Closure Maintenance and Controls
Section 6.2.2.	Minimize Post-Closure Escape of Dangerous Waste
Section 7.9.	Amendment to Closure Plan
Section 7.10.	Certification of Closure, Survey Plat, Notice in Deed, and Financial Requirements
Section 8.2.	Inspection Plan, from Class 1 Modification for quarter ending September 30, 1998
Section 8.4.	Maintenance Plan, from Class 1 Modification for quarter ending September 30, 1998
Section 8.5.	Personnel Training, from Class 1 Modification for quarter ending September 30, 1998
Appendix 2A	Photographs
Appendix 5A	Ground Water References
Appendix 5B	RCRA, Final Status Compliance Monitoring (WHC-SD-EN-AP-185, Rev. 0A)
Appendix 7A	Sampling and Analysis Plan
Appendix 7B	Sampling Data and Evaluation Package for the 300 Area Process Trenches
Appendix 7C	Training Course Descriptions

Appendix 7D Summary of Pre- and Post- Expedited Response Action (ERA) Sampling Data

VI.1.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN

VI.1.B.a. Page 1-1, line 34 will reference section II.K.3. of the Hanford Facility Wide Permit, which covers modified closures.

VI.1.B.b. Pursuant to Condition II.K.7. of the Hanford Facility Wide Permit, the 300 Area Process Trenches (APT) closure shall be a Modified Closure in coordination with the Record of Decision (ROD) for 300-FF-1 and 300-FF-5. Sections of CERCLA documents (examples may include, but are not limited to, Remedial Design/Remedial Action CERCLA work plan, the Operation and Monitoring Work Plan, etc.), which satisfy requirements and Conditions of this Modified Closure Plan, will be reviewed and approved by Ecology.

VI.1.B.c. The Sampling and Analysis Plan, Appendix 7A (Verification Sampling), will be submitted to Ecology for approval. This will occur prior to all remedial actions within the 300 APT.

VI.1.B.d. Page 1-7, lines 9-13. This portion of the paragraph will be replaced by the following: "Disposal of TSD unit soil into the Environmental Restoration Disposal Facility (ERDF) (or a comparable RCRA Subtitle C Landfill), within the boundaries of the Hanford Facility is allowed through an approved, contained in demonstration, based on MTCA B cleanup levels (WAC-173-340) for the contamination carrying the F and U codes, and with TCLP data for the characteristic waste."

VI.1.B.e. Page 6-1, lines 8-10. This portion of the paragraph will be replaced by the following: "Based on data in addition to ERA data (DOE/RL-92-32), remediation will occur to meet all Applicable Relevant and Appropriate Requirements (ARARs) within the trenches. This will include removal of the spoils pile for chemical contamination above MTCA C Industrial cleanup values. It has been concluded that when uranium is removed to the CERCLA cleanup standard of 350 piC/g, the Chemical Contaminants of Concern (COCs) will likely be removed to below the cleanup standard, as well. Verification samples will be collected for both chemicals and radioisotopes, as directed in the remedial action sampling and analysis plan, to determine whether performance standards for the modified closure have been met."

VI.1.B.f. Page 6-1, line 11. The sentence here is deleted and replaced with the following: "When TSD soils are remediated, the cleanup levels achieved for RCRA constituents could qualify the unit for clean closure of the soil."

VI.1.B.g. Page 6-1, lines 22-27. This portion of the paragraph will be removed.

VI.1.B.h. Page 6-2, line 23-27. These sentences will be deleted and replaced with the following: "Final closure specifications are known and will be coordinated with the CERCLA cleanup activities."

VI.1.B.i. As stipulated through the RCRA Final Status Compliance Monitoring Plan (i.e., WHC-SD-EN-AP-185) Appendix IX, sampling shall not be required unless post-closure monitoring results indicate a need to do so.

VI.1.B.j. Page 6-3, line 12-24. Presenting the option for Modified Closure is redundant. This paragraph will be deleted.

VI.1.B.k. Page 6-4, lines 26-33. Presenting the Landfill Closure Option is not supported by sufficient technical data. This paragraph will be deleted.

VI.1.B.l.	Page 6-6, lines 14-15. This paragraph will be replaced with the following: "RCRA closure verification will occur as part of the spoils pile removal, and will be in coordination with CERCLA remedial activities."
VI.1.B.m.	Page 6-6, lines 17-19. This paragraph will be replaced with the following: "The analytical results of TSD screening/verification sampling will be reviewed by Ecology. This review will be allowed at any point during the process (i.e., raw data, as well as, completed data summaries)."
VI.1.B.n.	Page 7-1, lines 5-10. This portion of the paragraph will be replaced by the following: "These closure activities will reflect the closure specifications stipulated in the Modified Closure/Post-Closure Plan, Hanford Facility Wide Permit (#WA7890008967), and the CERCLA ROD for 300-FF-1. Ground water remediation will be addressed as part of the remedial actions for 3-FF-5."
VI.1.B.o.	Page 7-6, lines 20-22. These sentences will be replaced by the following: "Sampling will be appropriate to the applicable remedial alternatives under consideration for remediation of both CERCLA and RCRA Constituents."
VI.1.B.p.	Page 8-3, line 6. Security Control Devices (SCD) will be developed pursuant to Condition II.K.3.a. of the Permit. Implementation of SCD will occur through Ecology approval of a monitoring, inspection, and maintenance Plan.
VI.1.B.q.	Page 8-3, line 20. Well condition will be assessed pursuant to Condition II.F. of the Permit.
VI.1.B.r	Page 8-5, Section 8.5. This section will reference Section II.C. of the Permit for additional training requirements.
VI.1.B.s.	Pursuant to CERCLA, removal of the spoils pile within the trenches will begin fifteen (15) months after the signature of the 300-FF-1/300-FF-5 ROD.

CHAPTER 2

183-H Solar Evaporation Basins

The 183-H Solar Evaporation Basins (Basins) comprise an inactive TSD unit that is currently undergoing closure activities. This TSD unit was operated as an evaporation treatment unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit. The following enforceable portions of the *183-H Solar Evaporation Basins Post-Closure Plan*, Rev. 0 (Plan), found in Attachment 37 supersede the *183-H Solar Evaporation Basins Closure Plan/Post-Closure Plan*, found in Attachment 11 which was previously listed in Part V, Chapter 1.

VI. 2. A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN

The requirements are set forth in Attachment 37. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

Part A, Form 3, Permit Application, Revision 4, June 1994

Attachment 37, 183-H Solar Evaporation Basins Post-Closure Plan, Rev. 0

Section 2.1	Modified Post-Closure Institutional Controls
Section 2.2	Modified Post-Closure Periodic Assessments
Section 3.0	Ground Water Monitoring During Post-Closure
Section 3.1	WAC 173-303-645(11)(d) Monitoring Requirements
Section 3.1.1	WAC 173-303-645(3) Ground Water Protection Standard
Section 3.1.2	WAC 173-303-645(8) General Ground Water Monitoring Requirements
Section 3.2	RCRA Corrective Action Ground Water Monitoring Schedule
Section 3.3	Ground Water Monitoring under CERCLA
Section 3.3.1	100-HR-3 Remedial Investigation Monitoring
Section 3.3.2	100-HR-3 Interim Remedial Measure Monitoring
Section 3.4	Inspection, Maintenance, and Replacement of Wells
Section 4.0	Corrective Action Plan
Section 4.1	Soil Column Corrective Action
Section 4.2	Ground water Corrective Action
Section 4.3	Remediation Expectations During the Interim Remedial Measure (IRM)
Section 5.0	Personnel Training During Post-Closure
Section 6.0	Security
Section 7.0	Closure Contact
Section 8.0	Certification of Post-Closure

VI.2.B. Amendments to the Approved Post-Closure Plan

VI.2.B.a The Permittee will review the modified closure option in five (5) years (February 28, 2003). The purpose of the review will be to determine if this TSD can be clean closed.

VI.2B.b Ground Water Monitoring Plan for the 183-H Solar Evaporation Basins, PNNL-11573. The Permittees shall comply with the above referenced document, which details the final status Ground Water Monitoring Program for the 183-H Solar Evaporation Basins.